

C 539	16	0.3	1299	3	US-09-385-028-21	Sequence 21, Appl	612	16	0.3	1577	4	US-08-978-847B-83	Sequence 83, Appl	613
C 540	16	0.3	1299	4	US-09-387-413-4	Sequence 21, Appl	613	16	0.3	1600	3	US-09-023-332-7	Sequence 7, Appl	614
C 541	16	0.3	1299	4	US-09-726-614-21	Sequence 21, Appl	614	16	0.3	1617	4	US-09-444-336-4	Sequence 4, Appl	615
C 542	16	0.3	1299	4	US-09-385-040-21	Sequence 21, Appl	615	16	0.3	1620	4	US-09-253-991A-10368	Sequence 10368, A	616
C 543	16	0.3	1300	4	US-09-755-665-7	Sequence 7, Appl	616	16	0.3	1629	4	US-09-425-991A-11733	Sequence 11733, A	617
C 544	16	0.3	1314	4	US-09-500-569-5	Sequence 5, Appl	617	16	0.3	1632	4	US-09-252-991A-14552	Sequence 14552, A	618
C 545	16	0.3	1314	4	US-09-971-823B-5	Sequence 5, Appl	618	16	0.3	1647	4	US-09-252-991A-12387	Sequence 12387, A	619
C 546	16	0.3	1320	4	US-09-210-748A-1	Sequence 1, Appl	619	16	0.3	1650	4	US-09-489-039A-1643	Sequence 1643, Ap	620
C 547	16	0.3	1320	4	US-09-489-039A-3231	Sequence 3231, Ap	620	16	0.3	1662	2	US-08-663-556A-12	Sequence 12, Appl	621
C 548	16	0.3	1323	4	US-09-395-674B-1	Sequence 1, Appl	621	16	0.3	1662	2	US-08-023-610-12	Sequence 12, Appl	622
C 549	16	0.3	1323	4	US-09-489-039A-3422	Sequence 3422, Ap	622	16	0.3	1662	2	US-08-362-240A-12	Sequence 12, Appl	623
C 550	16	0.3	1350	4	US-09-194-942A-12	Sequence 12, Appl	623	16	0.3	1662	2	US-08-804-372A-10	Sequence 10, Appl	624
C 551	16	0.3	1355	3	US-08-415-655-14	Sequence 14, Appl	624	16	0.3	1662	3	US-08-804-372A-10	Sequence 10, Appl	625
C 552	16	0.3	1359	1	US-07-618-312A-3	Sequence 3, Appl	625	16	0.3	1662	5	PCT-US95-10245-12	Sequence 12, Appl	626
C 553	16	0.3	1359	1	US-08-280-228-3	Sequence 3, Appl	626	16	0.3	1666	4	US-09-904-615-13	Sequence 13, Appl	627
C 554	16	0.3	1365	4	US-09-252-991A-12209	Sequence 12209, A	627	16	0.3	1676	4	US-09-870-956-3	Sequence 3, Appl	628
C 555	16	0.3	1365	4	US-09-489-039A-1180	Sequence 1180, Ap	628	16	0.3	1680	4	US-09-023-655-815	Sequence 815, App	629
C 556	16	0.3	1367	4	US-09-620-312D-21	Sequence 21, Appl	629	16	0.3	1683	4	US-09-252-991A-11226	Sequence 11226, A	630
C 557	16	0.3	1368	3	US-09-142-469-1	Sequence 1, Appl	630	16	0.3	1698	4	US-09-599-287A-1	Sequence 1, Appl	631
C 558	16	0.3	1392	3	US-09-252-991A-12249	Sequence 12249, A	631	16	0.3	1701	3	US-08-599-958-2	Sequence 2, Appl	632
C 559	16	0.3	1395	3	US-08-957-302A-3	Sequence 3, Appl	632	16	0.3	1704	4	US-09-489-039A-3097	Sequence 3097, Ap	633
C 560	16	0.3	1395	3	US-09-542-403-3	Sequence 3, Appl	633	16	0.3	1705	4	US-09-227-555-23	Sequence 23, Appl	634
C 561	16	0.3	1398	2	US-08-604-989A-9	Sequence 9, Appl	634	16	0.3	1707	4	US-09-489-039A-6584	Sequence 6584, Ap	635
C 562	16	0.3	1401	4	US-09-252-991A-15152	Sequence 15152, A	635	16	0.3	1711	4	US-09-976-654A-497	Sequence 497, App	636
C 563	16	0.3	1407	4	US-09-252-991A-12361	Sequence 12361, A	636	16	0.3	1713	2	US-08-467-948A-91	Sequence 1, Appl	637
C 564	16	0.3	1419	4	US-09-252-991A-6499	Sequence 6499, Ap	637	16	0.3	1713	3	US-08-467-947A-13	Sequence 1, Appl	638
C 565	16	0.3	1428	4	US-09-252-991A-3795	Sequence 3795, Ap	638	16	0.3	1713	3	US-09-741-154-1	Sequence 1, Appl	639
C 566	16	0.3	1434	5	PCT-US93-11404-1	Sequence 1, Appl	639	16	0.3	1714	4	US-09-620-312D-995	Sequence 995, App	640
C 567	16	0.3	1440	4	US-09-252-991A-8578	Sequence 8578, Ap	640	16	0.3	1752	3	US-09-022-949-1	Sequence 1, Appl	641
C 568	16	0.3	1440	4	US-09-252-991A-14615	Sequence 14615, A	641	16	0.3	1755	2	US-08-317-785-1	Sequence 1, Appl	642
C 569	16	0.3	1442	1	US-08-247-908A-1	Sequence 1, Appl	642	16	0.3	1785	4	US-09-148-545-112	Sequence 112, App	643
C 570	16	0.3	1442	1	US-08-453-942A-1	Sequence 1, Appl	643	16	0.3	1818	3	US-09-049-672A-22	Sequence 22, Appl	644
C 571	16	0.3	1442	2	US-08-926-885A-1	Sequence 1, Appl	644	16	0.3	1831	4	US-09-422-576D-1	Sequence 1, Appl	645
C 572	16	0.3	1442	5	PCT-US94-05290-1	Sequence 1, Appl	645	16	0.3	1833	4	US-09-252-991A-12136	Sequence 12136, A	646
C 573	16	0.3	1449	4	US-09-489-039A-3623	Sequence 3623, Ap	646	16	0.3	1842	4	US-09-252-991A-15508	Sequence 15508, A	647
C 574	16	0.3	1461	4	US-09-252-991A-14833	Sequence 14833, A	647	16	0.3	1872	4	US-09-801-052-1	Sequence 1, Appl	648
C 575	16	0.3	1464	4	US-09-252-991A-8971	Sequence 8971, Ap	648	16	0.3	1872	4	US-10-020-121-1	Sequence 1, Appl	649
C 576	16	0.3	1464	4	US-09-252-991A-11508	Sequence 11508, A	649	16	0.3	1886	4	US-09-149-476-99	Sequence 93, Appl	650
C 577	16	0.3	1467	4	US-09-328-352-270	Sequence 270, App	650	16	0.3	1887	4	US-09-252-991A-16156	Sequence 16156, Ap	651
C 578	16	0.3	1471	4	US-09-023-655-81	Sequence 81, Appl	651	16	0.3	1910	3	US-08-974-691-7	Sequence 7, Appl	652
C 579	16	0.3	1479	4	US-09-489-039A-5109	Sequence 5109, Ap	652	16	0.3	1942	2	US-08-604-989A-11	Sequence 11, Appl	653
C 580	16	0.3	1482	4	US-09-328-352-3051	Sequence 3051, Ap	653	16	0.3	1943	3	US-09-283-305-7	Sequence 7, Appl	654
C 581	16	0.3	1488	4	US-09-252-991A-14879	Sequence 14879, A	654	16	0.3	1943	3	US-09-883-720-7	Sequence 7, Appl	655
C 582	16	0.3	1488	4	US-09-252-991A-15378	Sequence 15378, A	655	16	0.3	1944	4	US-09-148-476-144	Sequence 144, App	656
C 583	16	0.3	1494	4	US-09-252-991A-9117	Sequence 9117, Ap	656	16	0.3	1951	4	US-09-203-268-217A	Sequence 27, Appl	657
C 584	16	0.3	1496	1	US-08-601-435-1	Sequence 1, Appl	657	16	0.3	1965	4	US-09-543-851A-1538	Sequence 1538, Ap	658
C 585	16	0.3	1496	2	US-08-931-047-1	Sequence 1, Appl	658	16	0.3	1974	4	US-09-252-991A-11111	Sequence 11111, A	659
C 586	16	0.3	1496	2	US-08-783-202-1	Sequence 1, Appl	659	16	0.3	1987	2	US-08-876-882-1	Sequence 1, Appl	660
C 587	16	0.3	1504	2	US-08-878-989-10	Sequence 10, Appl	660	16	0.3	1987	4	US-09-316-928-1	Sequence 1409, Ap	661
C 588	16	0.3	1504	2	US-09-272-796-10	Sequence 10, Appl	661	16	0.3	1987	4	US-09-023-655-1409	Sequence 1409, Ap	662
C 589	16	0.3	1515	4	US-09-134-001C-1333	Sequence 1333, Ap	662	16	0.3	2000	4	US-08-426-509A-1	Sequence 1, Appl	663
C 590	16	0.3	1519	1	US-07-973-324A-7	Sequence 7, Appl	663	16	0.3	2000	4	US-08-223-545-1	Sequence 1, Appl	664
C 591	16	0.3	1519	1	US-08-343-380-7	Sequence 7, Appl	664	16	0.3	2000	5	PCT-US95-05008-1	Sequence 1, Appl	665
C 592	16	0.3	1519	3	US-09-072-435-7	Sequence 7, Appl	665	16	0.3	2004	4	US-09-252-991A-11865	Sequence 28, Appl	666
C 593	16	0.3	1519	3	US-09-072-917A-7	Sequence 7, Appl	666	16	0.3	2006	4	US-09-489-847-28	Sequence 28, Appl	667
C 594	16	0.3	1521	2	US-08-604-989A-10	Sequence 10, Appl	667	16	0.3	2008	4	US-09-713-550-203	Sequence 203, Appl	668
C 595	16	0.3	1522	4	US-09-620-312D-296	Sequence 296, App	668	16	0.3	2018	4	US-09-370-807-11	Sequence 11, Appl	669
C 596	16	0.3	1530	4	US-09-131-831B-2	Sequence 2, Appl	669	16	0.3	2018	4	US-09-921-259-11	Sequence 11, Appl	670
C 597	16	0.3	1530	4	US-09-444-336-3	Sequence 3, Appl	670	16	0.3	2018	4	US-09-252-991A-12132	Sequence 12132, A	671
C 598	16	0.3	1539	3	US-09-050-725B-6	Sequence 6, Appl	671	16	0.3	2040	4	US-09-252-991A-8829	Sequence 8829, App	672
C 599	16	0.3	1539	3	US-09-232-851-6	Sequence 6, Appl	672	16	0.3	2052	4	US-09-252-991A-13288	Sequence 13288, A	673
C 600	16	0.3	1554	3	US-08-809-999D-1	Sequence 1, Appl	673	16	0.3	2059	4	US-09-604-978-5	Sequence 5, Appl	674
C 601	16	0.3	1554	3	US-09-069-637-1	Sequence 1, Appl	674	16	0.3	2061	4	US-09-604-978-5	Sequence 5, Appl	675
C 602	16	0.3	1554	3	US-09-322-360-1	Sequence 1, Appl	675	16	0.3	2061	4	US-09-008-271A-16	Sequence 16, Appl	676
C 603	16	0.3	1554	4	US-09-131-831B-1	Sequence 1, Appl	676	16	0.3	2061	4	US-09-705-448-2	Sequence 2, Appl	677
C 604	16	0.3	1555	2	US-08-316-231B-1	Sequence 1, Appl	677	16	0.3	2088	1	US-08-331-394-1	Sequence 1, Appl	678
C 605	16	0.3	1566	6	5290690-3	Patent No. 5290690	678	16	0.3	2088	1	US-08-250-858-1	Sequence 1, Appl	679
C 606	16	0.3	1575	3	US-08-957-302A-1	Sequence 1, Appl	679	16	0.3	2088	1	US-08-446-915-1	Sequence 1, Appl	680
C 607	16	0.3	1575	3	US-09-542-403-1	Sequence 1, Appl	680	16	0.3	2088	2	US-08-744-139-1	Sequence 1, Appl	681
C 608	16	0.3	1576	2	US-09-197-378-1	Sequence 1, Appl	681	16	0.3	2088	4	US-08-776-599-1	Sequence 1, Appl	682
C 609	16	0.3	1576	2	US-09-023-655-1273	Sequence 1273, Ap	682	16	0.3	2088	5	PCT-US95-06639-1	Sequence 1, Appl	683
C 610	16	0.3	1577	3	US-08-691-563C-89	Sequence 89, Appl	683	16	0.3	2094	4	US-09-252-991A-12312	Sequence 12312, A	684
C 611	16	0.3	1577	4	US-09-374-766-89	Sequence 89, Appl	684	16	0.3	2101	3	US-09-313-990-1	Sequence 1, Appl	685

685	16	0.3	2104	4	US-09-023-655-1191	Sequence 1191, App	c 758	16	0.3	2646	4	US-09-184-418C-86	Sequence 86, Appl
c 686	16	0.3	2131	4	US-09-220-132-145	Sequence 145, App	c 759	16	0.3	2655	4	US-09-016-454-1094	Sequence 1094, App
c 687	16	0.3	2132	2	US-09-159-385-3	Sequence 3, Appl1	c 760	16	0.3	2655	4	US-09-023-655-916	Sequence 916, App
c 688	16	0.3	2132	3	US-09-186-277-3	Sequence 3, Appl1	c 761	16	0.3	2657	3	US-09-488-671-3	Sequence 3, Appl1
c 689	16	0.3	2135	4	US-09-221-017B-1091	Sequence 1091, App	c 762	16	0.3	2664	2	US-08-944-819-1	Sequence 1, Appl1
c 690	16	0.3	2136	4	US-09-023-655-1144	Sequence 1144, App	c 763	16	0.3	2664	2	US-09-522-955A-1	Sequence 1, Appl1
c 691	16	0.3	2148	3	US-08-809-999D-2	Sequence 2, Appl1	c 764	16	0.3	2675	1	US-08-070-165F-5	Sequence 5, Appl1
c 692	16	0.3	2148	3	US-09-069-637-2	Sequence 2, Appl1	c 765	16	0.3	2675	2	US-08-885-418-5	Sequence 5, Appl1
c 693	16	0.3	2148	3	US-09-323-360-2	Sequence 2, Appl1	c 766	16	0.3	2681	2	US-08-070-165F-9	Sequence 9, Appl1
c 694	16	0.3	2159	3	US-08-266-870A-7	Sequence 7, Appl1	c 767	16	0.3	2681	2	US-08-885-418-9	Sequence 9, Appl1
c 695	16	0.3	2165	4	US-09-252-991A-11722	Sequence 11722, App	c 768	16	0.3	2688	4	US-09-489-847-57	Sequence 57, Appl
c 696	16	0.3	2181	4	US-09-489-847-37	Sequence 97, Appl1	c 769	16	0.3	2688	4	US-09-488-039A-122	Sequence 722, App
c 697	16	0.3	2208	5	PCT-US95-08493-1	Sequence 1, Appl1	c 770	16	0.3	2691	4	US-09-489-039A-3091	Sequence 3091, App
c 698	16	0.3	2212	3	US-08-960-507-18	Sequence 18, Appl1	c 771	16	0.3	2692	3	US-08-981-392-11	Sequence 11, Appl1
c 699	16	0.3	2212	4	US-09-136-801-18	Sequence 18, Appl1	c 772	16	0.3	2697	4	US-09-212-247C-10	Sequence 10, Appl1
c 700	16	0.3	2212	4	US-09-203-088A-18	Sequence 18, Appl1	c 773	16	0.3	2712	4	US-09-919-172-40	Sequence 40, Appl1
c 701	16	0.3	2240	4	US-09-489-847-84	Sequence 84, Appl1	c 774	16	0.3	2718	3	US-09-074-658-69	Sequence 69, Appl1
c 702	16	0.3	2254	3	US-08-553-369-1	Sequence 1, Appl1	c 775	16	0.3	2736	4	US-09-252-991A-8665	Sequence 8665, App
c 703	16	0.3	2280	3	US-09-009-913-8	Sequence 8, Appl1	c 776	16	0.3	2763	4	US-09-252-991A-12347	Sequence 12347, App
c 704	16	0.3	2283	4	US-09-252-991A-10956	Sequence 10956, App	c 777	16	0.3	2823	4	US-09-704-611-4	Sequence 4, Appl1
c 705	16	0.3	2292	4	US-09-328-352-280	Sequence 280, App	c 778	16	0.3	2834	4	US-09-566-921-43	Sequence 43, Appl1
c 706	16	0.3	2299	4	US-09-475-515-81	Sequence 81, Appl1	c 779	16	0.3	2857	3	US-08-981-392-4	Sequence 4, Appl1
c 707	16	0.3	2300	4	US-09-475-515-83	Sequence 83, Appl1	c 780	16	0.3	2865	2	US-08-749-169A-2	Sequence 2, Appl1
c 708	16	0.3	2304	4	US-08-979-847B-87	Sequence 87, Appl1	c 781	16	0.3	2865	2	US-09-130-032A-2	Sequence 2, Appl1
c 709	16	0.3	2305	4	US-09-475-515-80	Sequence 80, Appl1	c 782	16	0.3	2869	1	US-08-374-834-2	Sequence 2, Appl1
c 710	16	0.3	2306	4	US-09-475-515-82	Sequence 82, Appl1	c 783	16	0.3	2869	1	US-08-644-271-2	Sequence 2, Appl1
c 711	16	0.3	2311	4	US-09-489-847-123	Sequence 123, App	c 784	16	0.3	2869	4	US-09-077-955-2	Sequence 2, Appl1
c 712	16	0.3	2312	4	US-09-475-515-84	Sequence 84, Appl1	c 785	16	0.3	2881	4	US-09-702-705-1794	Sequence 1794, App
c 713	16	0.3	2313	4	US-09-370-838-157	Sequence 157, App	c 786	16	0.3	2881	4	US-09-736-457-1794	Sequence 1794, App
c 714	16	0.3	2320	4	US-09-976-594-428	Sequence 428, App	c 787	16	0.3	2882	4	US-09-671-325-1794	Sequence 1794, App
c 715	16	0.3	2327	4	US-09-252-991A-726	Sequence 726, App	c 788	16	0.3	2891	4	US-09-704-611-3	Sequence 3, Appl1
c 716	16	0.3	2370	4	US-09-252-991A-12196	Sequence 12196, App	c 789	16	0.3	2899	4	US-08-981-392-24	Sequence 24, Appl1
c 717	16	0.3	2379	4	US-08-890-615-1	Sequence 1, Appl1	c 790	16	0.3	2914	1	US-08-454-097-11	Sequence 11, Appl1
c 718	16	0.3	2394	4	US-09-620-312D-592	Sequence 592, App	c 791	16	0.3	2914	3	US-08-185-359-11	Sequence 11, Appl1
c 719	16	0.3	2413	4	US-09-016-434-1469	Sequence 1469, App	c 792	16	0.3	2925	4	US-09-883-134-6	Sequence 6, Appl1
c 720	16	0.3	2416	4	US-09-620-312D-566	Sequence 566, App	c 793	16	0.3	2943	4	US-09-421-017B-153	Sequence 153, App
c 721	16	0.3	2428	4	US-09-009-913-6	Sequence 6, Appl1	c 794	16	0.3	2991	1	US-09-252-991A-12025	Sequence 12025, App
c 722	16	0.3	2430	4	US-09-620-312D-591	Sequence 591, App	c 795	16	0.3	2997	4	US-08-453-862-1	Sequence 1, Appl1
c 723	16	0.3	2441	4	US-09-785-381-4	Sequence 4, Appl1	c 796	16	0.3	2997	2	US-08-452-734B-1	Sequence 1, Appl1
c 724	16	0.3	2454	3	US-08-890-615-1	Sequence 1, Appl1	c 797	16	0.3	2997	2	US-08-176-401A-1	Sequence 1, Appl1
c 725	16	0.3	2454	3	US-09-246-290A-1	Sequence 1, Appl1	c 798	16	0.3	2997	5	PCT-US94-14899-1	Sequence 1, Appl1
c 726	16	0.3	2467	4	US-09-872-733A-3	Sequence 3, Appl1	c 799	16	0.3	3012	4	US-09-252-991A-7498	Sequence 7498, App
c 727	16	0.3	2469	4	US-09-252-991A-12963	Sequence 12963, App	c 800	16	0.3	3017	1	US-08-444-792-1	Sequence 1, Appl1
c 728	16	0.3	2475	3	US-09-045-185-1	Sequence 1, Appl1	c 801	16	0.3	3017	1	US-08-445-042-1	Sequence 1, Appl1
c 729	16	0.3	2475	3	US-09-045-185-3	Sequence 3, Appl1	c 802	16	0.3	3022	4	US-09-193-562D-33	Sequence 33, Appl1
c 730	16	0.3	2475	3	US-09-579-365-1	Sequence 1, Appl1	c 803	16	0.3	3032	4	US-09-421-017B-347	Sequence 347, App
c 731	16	0.3	2482	1	US-07-803-632E-1	Sequence 1, Appl1	c 804	16	0.3	3037	2	US-09-938-365-1	Sequence 1, Appl1
c 732	16	0.3	2493	4	US-09-252-991A-11987	Sequence 11987, App	c 805	16	0.3	3057	4	US-09-150-460B-5	Sequence 5, Appl1
c 733	16	0.3	2498	3	US-09-009-913-10	Sequence 10, Appl1	c 806	16	0.3	3059	4	US-09-170-585A-2	Sequence 2, Appl1
c 734	16	0.3	2499	4	US-09-252-991A-696	Sequence 696, App	c 807	16	0.3	3120	4	US-09-252-991A-12395	Sequence 12395, App
c 735	16	0.3	2508	4	US-09-758-282B-48	Sequence 48, Appl1	c 808	16	0.3	3141	4	US-09-489-039A-977	Sequence 977, App
c 736	16	0.3	2508	4	US-09-758-282B-242	Sequence 242, App	c 809	16	0.3	3147	2	US-08-781-802-7	Sequence 7, Appl1
c 737	16	0.3	2510	2	US-08-888-982A-42	Sequence 42, Appl1	c 810	16	0.3	3147	3	US-08-694-078-7	Sequence 7, Appl1
c 738	16	0.3	2510	4	US-09-463-261-42	Sequence 42, Appl1	c 811	16	0.3	3147	3	US-09-058-260-7	Sequence 7, Appl1
c 739	16	0.3	2510	4	US-09-506-073-49	Sequence 49, Appl1	c 812	16	0.3	3172	6	5196511-1	Parent No. 5196511
c 740	16	0.3	2549	1	US-08-470-720-2	Sequence 2, Appl1	c 813	16	0.3	3172	4	US-09-023-655-1185	Sequence 1185, App
c 741	16	0.3	2577	2	US-08-209-521-25	Sequence 25, Appl1	c 814	16	0.3	3236	4	US-09-833-381-1727	Sequence 1727, App
c 742	16	0.3	2577	2	US-09-265-503B-135	Sequence 135, App	c 815	16	0.3	3240	4	US-09-851-896-10	Sequence 10, Appl1
c 743	16	0.3	2580	5	PCT-US95-08493-18	Sequence 18, Appl1	c 816	16	0.3	3291	1	US-08-574-763-1	Sequence 1, Appl1
c 744	16	0.3	2592	4	US-09-489-039A-3008	Sequence 3008, App	c 817	16	0.3	3303	4	US-09-409-648-5	Sequence 5, Appl1
c 745	16	0.3	2595	4	US-09-023-655-254	Sequence 254, App	c 818	16	0.3	3303	4	US-09-409-648-6	Sequence 6, Appl1
c 746	16	0.3	2604	5	US-09-540-236-756	Sequence 756, App	c 819	16	0.3	3319	2	US-08-960-022-19	Sequence 19, Appl1
c 747	16	0.3	2604	5	PCT-US95-08493-20	Sequence 20, Appl1	c 820	16	0.3	3324	4	US-09-620-312D-1020	Sequence 1020, App
c 748	16	0.3	2610	1	US-08-374-834-17	Sequence 17, Appl1	c 821	16	0.3	3324	4	US-09-488-039A-1719	Sequence 1719, App
c 749	16	0.3	2610	1	US-08-644-271-48	Sequence 48, Appl1	c 822	16	0.3	3336	3	US-08-974-549A-640	Sequence 640, App
c 750	16	0.3	2610	4	US-09-077-955-32	Sequence 32, Appl1	c 823	16	0.3	3396	4	US-08-974-549A-641	Sequence 641, App
c 751	16	0.3	2634	2	US-08-818-514-1	Sequence 1, Appl1	c 824	16	0.3	3396	4	US-09-721-456-640	Sequence 640, App
c 752	16	0.3	2634	2	US-08-818-514-2	Sequence 2, Appl1	c 825	16	0.3	3396	4	US-09-721-456-641	Sequence 641, App
c 753	16	0.3	2634	3	US-09-115-934A-1	Sequence 1, Appl1	c 826	16	0.3	3417	4	US-09-252-991A-3720	Sequence 3720, App
c 754	16	0.3	2634	3	US-09-115-934A-2	Sequence 2, Appl1	c 827	16	0.3	3441	4	US-09-866-028-6	Sequence 6, Appl1
c 755	16	0.3	2634	4	US-09-611-175-1	Sequence 1, Appl1	c 828	16	0.3	3443	4	US-09-866-028-6	Sequence 6, Appl1
c 756	16	0.3	2634	4	US-09-611-175-2	Sequence 2, Appl1	c 829	16	0.3	3458	4	US-09-023-655-003	Sequence 3, Appl1
c 757	16	0.3	2640	4	US-08-684-932A-37	Sequence 37, Appl1	c 830	16	0.3	3465	4	US-09-134-001C-591	Sequence 591, App

831	16	0.3	3475	3	US-09-657-481A-10	Sequence 10, Appl	C 904	16	0.3	4500	1	US-08-308-872B-1	Sequence 1, Appl
832	16	0.3	3476	3	US-08-630-916A-47	Sequence 47, Appl	905	16	0.3	4650	1	US-07-998-003A-102	Sequence 102, App
833	16	0.3	3483	4	US-09-130-491-3	Sequence 3, Appl	906	16	0.3	4650	1	US-08-453-274B-102	Sequence 102, App
C 834	16	0.3	3577	4	US-09-620-312D-457	Sequence 457, App	907	16	0.3	4650	1	US-08-453-695A-102	Sequence 102, App
835	16	0.3	3600	1	US-08-537-002A-5	Sequence 5, Appl	908	16	0.3	4650	1	US-08-368-161A-102	Sequence 102, App
836	16	0.3	3600	1	US-08-863-010-5	Sequence 5, Appl	909	16	0.3	4650	2	US-08-453-102A-102	Sequence 102, App
837	16	0.3	3600	3	US-09-824-429-5	Sequence 5, Appl	910	16	0.3	4650	3	US-09-099-639-102	Sequence 102, App
838	16	0.3	3621	4	US-09-635-872A-21	Sequence 21, Appl	911	16	0.3	4650	5	PCT-US93-12588-102	Sequence 102, App
839	16	0.3	3621	4	US-09-636-077A-21	Sequence 21, Appl	912	16	0.3	4650	5	PCT-US95-08071-102	Sequence 102, App
840	16	0.3	3621	4	US-09-636-060C-21	Sequence 21, Appl	913	16	0.3	4656	5	US-09-150-680B-4	Sequence 4, Appl
841	16	0.3	3623	4	US-09-986-552-21	Sequence 21, Appl	914	16	0.3	4900	1	US-08-245-295-5	Sequence 5, Appl
842	16	0.3	3623	1	US-08-306-691B-35	Sequence 35, Appl	C 915	16	0.3	4900	1	US-08-481-130-5	Sequence 5, Appl
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C 844	16	0.3	3636	3	US-09-388-774-2	Sequence 2, Appl	C 917	16	0.3	4900	1	US-08-485-604-5	Sequence 5, Appl
C 845	16	0.3	3657	4	US-09-252-991A-8298	Sequence 8298, App	C 918	16	0.3	4900	2	US-08-487-595-5	Sequence 2, Appl
C 846	16	0.3	3660	4	US-09-252-991A-12269	Sequence 12269, A	C 919	16	0.3	4900	3	US-08-683-790-26	Sequence 26, Appl
C 847	16	0.3	3710	3	US-07-741-453A-62	Sequence 62, Appl	C 920	16	0.3	4900	3	US-08-296-749-26	Sequence 26, Appl
C 848	16	0.3	3747	4	US-09-213-293D-2	Sequence 2, Appl	C 921	16	0.3	4935	2	US-08-631-097-3	Sequence 3, Appl
C 849	16	0.3	3754	4	US-08-586-740A-6	Sequence 6, Appl	C 922	16	0.3	4954	1	US-08-470-120-5	Sequence 5, Appl
C 850	16	0.3	3754	4	US-08-579-611-17	Sequence 17, Appl	C 923	16	0.3	5049	1	US-08-336-345-1	Sequence 1, Appl
C 851	16	0.3	3769	4	US-08-379-611-18	Sequence 18, Appl	924	16	0.3	5049	1	US-08-336-345-2	Sequence 2, Appl
C 852	16	0.3	3770	4	US-09-566-921-53	Sequence 53, Appl	925	16	0.3	5049	2	US-08-647-655-1	Sequence 2, Appl
853	16	0.3	3783	4	US-09-635-872A-20	Sequence 20, Appl	926	16	0.3	5049	2	US-08-647-655-2	Sequence 2, Appl
854	16	0.3	3783	4	US-09-636-077A-20	Sequence 20, Appl	C 927	16	0.3	5077	1	US-08-245-295-8	Sequence 8, Appl
855	16	0.3	3783	4	US-09-636-060C-20	Sequence 20, Appl	C 928	16	0.3	5077	1	US-08-481-130-8	Sequence 8, Appl
856	16	0.3	3783	4	US-09-986-552-20	Sequence 20, Appl	C 929	16	0.3	5077	1	US-08-656-984A-8	Sequence 8, Appl
857	16	0.3	3805	4	US-09-120-132-9	Sequence 9, Appl	C 930	16	0.3	5077	1	US-08-485-604-8	Sequence 8, Appl
858	16	0.3	3821	4	US-09-566-921-25	Sequence 25, Appl	C 931	16	0.3	5077	2	US-08-487-595-8	Sequence 8, Appl
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C 860	16	0.3	3839	4	US-09-898-361-10	Sequence 10, Appl	C 933	16	0.3	5091	4	US-08-488-446-668	Sequence 668, App
861	16	0.3	3861	4	US-09-252-991A-8018	Sequence 8018, App	C 934	16	0.3	5091	4	US-08-467-344A-668	Sequence 668, App
862	16	0.3	3886	4	US-09-328-352-1919	Sequence 1919, App	C 935	16	0.3	5247	1	US-08-920-812-15	Sequence 15, Appl
C 863	16	0.3	3925	2	US-09-047-026A-3	Sequence 3, Appl	C 936	16	0.3	5247	1	US-08-920-812-15	Sequence 15, Appl
C 864	16	0.3	3936	4	US-09-819-172-49	Sequence 49, Appl	C 937	16	0.3	5247	1	US-08-921-177-15	Sequence 15, Appl
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C 867	16	0.3	4104	1	US-07-998-003A-94	Sequence 94, Appl	C 940	16	0.3	5275	1	US-08-485-588-1	Sequence 1, Appl
868	16	0.3	4104	1	US-08-453-274B-94	Sequence 94, Appl	C 941	16	0.3	5275	1	US-08-484-565-1	Sequence 1, Appl
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870	16	0.3	4104	1	US-08-268-161A-94	Sequence 94, Appl	C 943	16	0.3	5275	2	US-08-943-866-1	Sequence 1, Appl
871	16	0.3	4104	2	US-08-453-702A-94	Sequence 94, Appl	C 944	16	0.3	5275	3	US-08-353-784-1	Sequence 1, Appl
872	16	0.3	4104	2	US-09-099-639-94	Sequence 94, Appl	C 945	16	0.3	5275	3	US-08-484-719B-1	Sequence 1, Appl
873	16	0.3	4104	5	PCT-US93-12588-94	Sequence 94, Appl	C 946	16	0.3	5275	4	US-08-484-159-1	Sequence 1, Appl
874	16	0.3	4104	5	PCT-US95-08071-94	Sequence 94, Appl	C 947	16	0.3	5357	4	US-09-392-184-5	Sequence 5, Appl
C 875	16	0.3	4113	4	US-09-785-381-2	Sequence 2, Appl	C 948	16	0.3	5357	6	5223424-5	Patent No. 5223424
C 876	16	0.3	4143	4	US-09-328-352-4006	Sequence 4006, App	C 949	16	0.3	5400	4	US-09-134-000C-1773	Sequence 1773, App
C 877	16	0.3	4177	2	US-08-484-575A-12	Sequence 12, Appl	950	16	0.3	5400	4	US-09-635-872A-4	Sequence 4, Appl
C 878	16	0.3	4177	3	US-08-477-459-12	Sequence 12, Appl	951	16	0.3	5400	4	US-09-636-077C-4	Sequence 4, Appl
C 879	16	0.3	4177	3	US-08-479-869-12	Sequence 12, Appl	952	16	0.3	5400	4	US-09-636-077C-4	Sequence 4, Appl
C 880	16	0.3	4177	3	US-08-486-414-12	Sequence 12, Appl	953	16	0.3	5400	4	US-09-636-077C-4	Sequence 4, Appl
C 881	16	0.3	4177	5	PCT-US94-01826A-12	Sequence 12, Appl	954	16	0.3	5400	4	US-09-636-077C-4	Sequence 4, Appl
C 882	16	0.3	4177	5	PCT-US94-02252A-12	Sequence 12, Appl	955	16	0.3	5400	4	US-09-636-077C-4	Sequence 4, Appl
C 883	16	0.3	4190	3	US-08-589-291A-2	Sequence 2, Appl	956	16	0.3	5400	2	US-08-716-679-2	Sequence 2, Appl
884	16	0.3	4190	4	US-09-589-619-2	Sequence 2, Appl	957	16	0.3	5400	2	US-08-810-712-9	Sequence 9, Appl
885	16	0.3	4190	4	US-09-588-188B-19	Sequence 19, Appl	C 958	16	0.3	5400	1	US-08-188-582-10	Sequence 10, Appl
886	16	0.3	4196	4	US-09-291-417D-19	Sequence 19, Appl	C 959	16	0.3	5400	1	US-08-686-715-10	Sequence 10, Appl
887	16	0.3	4319	4	US-09-475-515-6	Sequence 6, Appl	C 960	16	0.3	5400	4	US-08-793-273C-3	Sequence 3, Appl
C 888	16	0.3	4338	4	US-09-872-733A-1	Sequence 1, Appl	961	16	0.3	6049	5	PCT-US95-11684-3	Sequence 3, Appl
C 889	16	0.3	4338	4	US-09-802-927-1	Sequence 1, Appl	C 962	16	0.3	6049	3	US-09-067-800-4	Sequence 4, Appl
C 890	16	0.3	4359	3	US-08-331-625A-1	Sequence 1, Appl	C 963	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 891	16	0.3	4359	4	US-09-494-151-1	Sequence 1, Appl	964	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 892	16	0.3	4359	4	US-09-572-484-1	Sequence 1, Appl	965	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 893	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	C 966	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 894	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	967	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 895	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	968	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 896	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	969	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 897	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	970	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 898	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	C 971	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 899	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	C 972	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 900	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	C 973	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 901	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	974	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
C 902	16	0.3	4359	5	PCT-US93-04692-1	Sequence 1, Appl	975	16	0.3	6138	3	US-09-349-677-4	Sequence 4, Appl
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977 16 0.3 7620 1 US-07-767-135-1 Sequence 1, Appli
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979 16 0.3 7898 4 US-08-984-703A-49 Sequence 49, Appli
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981 16 0.3 8176 4 US-09-431-184A-5 Sequence 5, Appli
982 16 0.3 8312 4 US-09-620-312D-1048 Sequence 1048, Ap
983 16 0.3 8366 4 US-09-872-731A-6 Sequence 6, Appli
984 16 0.3 8438 1 US-07-945-283-1 Sequence 1, Appli
985 16 0.3 8598 4 US-08-305-7908-1 Sequence 11, Appli
986 16 0.3 8812 4 US-08-469-260A-11 Sequence 11, Appli
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989 16 0.3 8912 4 US-09-184-418C-9 Sequence 9, Appli
990 16 0.3 9034 4 US-08-469-260A-397 Sequence 397, App
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993 16 0.3 9122 2 US-08-417-629B-1 Sequence 1, Appli
994 16 0.3 9126 2 US-08-580-038-26 Sequence 26, Appli
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996 16 0.3 9143 2 US-08-639-857-32 Sequence 32, Appli
997 16 0.3 9143 4 US-08-469-260A-390 Sequence 390, App
998 16 0.3 9143 4 US-08-469-260A-393 Sequence 393, App
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## ALIGNMENTS

## RESULT 1

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US-09-252-991A-3017/c
; Sequence 3017, Application US/09252991A
; Patent No. 6551795
; GENERAL INFORMATION:
; APPLICANT: Marc J. Rubenfield et al.
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
; FILE REFERENCE: 107196.136
; CURRENT APPLICATION NUMBER: US/09/252,991A
; CURRENT FILING DATE: 1999-02-18
; PRIOR APPLICATION NUMBER: US 60/074,788
; PRIOR FILING DATE: 1998-02-18
; PRIOR APPLICATION NUMBER: US 60/094,190
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 33142
; SEQ ID NO 3017
; LENGTH: 249
; TYPE: DNA
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-3017

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Best Local Similarity 100.0%; Pred. No. 14;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 1920 GGAGACCGGCGATGACCTTCG 1939

Db 108 GGAGACCGGCGATGACCTTCG 89

## RESULT 2

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US-09-313-294A-7021/c
; Sequence 7021, Application US/09313294A
; Patent No. 6476212
; GENERAL INFORMATION:
; APPLICANT: Lalauadi, Raghunath V.
; APPLICANT: Ito, Laura Y.
; TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN EAR
; FILE REFERENCE: PL-0017 US
; CURRENT APPLICATION NUMBER: US/09/313,294A
; CURRENT FILING DATE: 1999-05-14
; NUMBER OF SEQ ID NOS: 7600

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; SOFTWARE: PERL Program
; SEQ ID NO 7021
; LENGTH: 311
; TYPE: DNA
; ORGANISM: Zea mays
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6476212 700381005H1
; NAME/KEY: unsure
; LOCATION: 87, 254, 276, 286
; OTHER INFORMATION: a, t, c, g, or other
US-09-313-294A-7021

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Query Match 0.4%; Score 20; DB 4; Length 311;
Best Local Similarity 100.0%; Pred. No. 14;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 4827 CAACTCCACCGCTCCAGGA 4846

Db 115 CAACTCCACCGCTCCAGGA 96

## RESULT 3

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US-09-401-064-165/c
; Sequence 165, Application US/09401064
; Patent No. 6623923
; GENERAL INFORMATION:
; APPLICANT: Xu, Jiangchun
; APPLICANT: Lodes, Michael J.
; APPLICANT: Secrist, Heather
; APPLICANT: Benson, Darin R.
; APPLICANT: Meagher, Madeline Joy
; APPLICANT: Stolk, John A.
; TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND
; FILE REFERENCE: 210121.471C2
; CURRENT APPLICATION NUMBER: US/09/401,064
; CURRENT FILING DATE: 1999-09-22
; NUMBER OF SEQ ID NOS: 371
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 165
; LENGTH: 462
; TYPE: DNA
; ORGANISM: Homo sapien
US-09-401-064-165

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Query Match 0.4%; Score 20; DB 4; Length 462;
Best Local Similarity 100.0%; Pred. No. 14;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 4827 CAACTCCACCGCTCCAGGA 4846

Db 116 CAACTCCACCGCTCCAGGA 97

## RESULT 4

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US-09-385-982-238/c
; Sequence 238, Application US/09385982
; Patent No. 6262334
; GENERAL INFORMATION:
; APPLICANT: ENDEGE, WILSON O., ET AL.
; TITLE OF INVENTION: NOVEL HUMAN GENES AND GENE EXPRESSION
; FILE REFERENCE: CCDNA-260XX
; CURRENT APPLICATION NUMBER: US/09/385,982
; CURRENT FILING DATE: 1999-08-30
; EARLIER APPLICATION NUMBER: 09/328,111
; EARLIER FILING DATE: 1999-06-08
; EARLIER APPLICATION NUMBER: 60/117,393
; EARLIER FILING DATE: 1999-01-27
; EARLIER APPLICATION NUMBER: 60/098,639
; EARLIER FILING DATE: 1998-08-31

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NUMBER OF SEQ ID NOS: 544  
SOFTWARE: FastSeq for Windows Version 3.0  
SEQ ID NO 238  
LENGTH: 616  
TYPE: DNA  
ORGANISM: Homo sapiens  
FEATURE:  
NAME/KEY: misc\_feature  
LOCATION: (1)...(616)  
OTHER INFORMATION: n = A,T,C or G  
US-09-385-982-238

Query Match 0.4%; Score 20; DB 3; Length 616;  
Best Local Similarity 100.0%; Pred. No. 14;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4827 CAATCCACCGTCTCCAGGA 4846  
DB 71 CAATCCACCGTCTCCAGGA 52

RESULT 5  
US-09-252-991A-2754  
Sequence 2754, Application US/09252991A  
Patent No. 6551795  
GENERAL INFORMATION:  
APPLICANT: Marc J. Rubenfield et al.  
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS  
FILE REFERENCE: 107196.136  
CURRENT APPLICATION NUMBER: US/09/252,991A  
CURRENT FILING DATE: 1999-02-18  
PRIOR APPLICATION NUMBER: US 60/074,788  
PRIOR FILING DATE: 1998-02-18  
PRIOR APPLICATION NUMBER: US 60/094,190  
PRIOR FILING DATE: 1998-07-27  
NUMBER OF SEQ ID NOS: 33142  
SEQ ID NO 2754  
LENGTH: 894  
TYPE: DNA  
ORGANISM: Pseudomonas aeruginosa  
US-09-252-991A-2754

Query Match 0.4%; Score 20; DB 4; Length 894;  
Best Local Similarity 100.0%; Pred. No. 14;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1920 GGAGACCGGCATGACCTTCG 1939  
DB 687 GGAGACCGGCATGACCTTCG 706

RESULT 6  
US-09-252-991A-2651  
Sequence 2651, Application US/09252991A  
Patent No. 6551795  
GENERAL INFORMATION:  
APPLICANT: Marc J. Rubenfield et al.  
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS  
FILE REFERENCE: 107196.136  
CURRENT APPLICATION NUMBER: US/09/252,991A  
CURRENT FILING DATE: 1999-02-18  
PRIOR APPLICATION NUMBER: US 60/074,788  
PRIOR FILING DATE: 1998-02-18  
PRIOR APPLICATION NUMBER: US 60/094,190  
PRIOR FILING DATE: 1998-07-27  
NUMBER OF SEQ ID NOS: 33142  
SEQ ID NO 2651  
LENGTH: 1029  
TYPE: DNA  
ORGANISM: Pseudomonas aeruginosa  
US-09-252-991A-2651

Query Match 0.4%; Score 20; DB 4; Length 1029;  
Best Local Similarity 100.0%; Pred. No. 14;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1920 GGAGACCGGCATGACCTTCG 1939  
DB 361 GGAGACCGGCATGACCTTCG 380

RESULT 7  
US-09-252-991A-3212/C  
Sequence 3212, Application US/09252991A  
Patent No. 6551795  
GENERAL INFORMATION:  
APPLICANT: Marc J. Rubenfield et al.  
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS  
FILE REFERENCE: 107196.136  
CURRENT APPLICATION NUMBER: US/09/252,991A  
CURRENT FILING DATE: 1999-02-18  
PRIOR APPLICATION NUMBER: US 60/074,788  
PRIOR FILING DATE: 1998-02-18  
PRIOR APPLICATION NUMBER: US 60/094,190  
PRIOR FILING DATE: 1998-07-27  
NUMBER OF SEQ ID NOS: 33142  
SEQ ID NO 3212  
LENGTH: 1455  
TYPE: DNA  
ORGANISM: Pseudomonas aeruginosa  
US-09-252-991A-3212

Query Match 0.4%; Score 20; DB 4; Length 1455;  
Best Local Similarity 100.0%; Pred. No. 15;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1920 GGAGACCGGCATGACCTTCG 1939  
DB 322 GGAGACCGGCATGACCTTCG 303

RESULT 8  
US-09-976-594-779/C  
Sequence 779, Application US/09976594  
Patent No. 6673549  
GENERAL INFORMATION:  
APPLICANT: Buchbinder, Jenny  
TITLE OF INVENTION: GENES EXPRESSED IN C3A LIVER CELL CULTURES TREATED WITH STEROIDS  
FILE REFERENCE: PA-0041 US  
CURRENT APPLICATION NUMBER: US/09/976,594  
CURRENT FILING DATE: 2001-10-12  
PRIOR APPLICATION NUMBER: 60/240,409  
PRIOR FILING DATE: 2000-10-12  
NUMBER OF SEQ ID NOS: 1143  
SOFTWARE: PERL Program  
SEQ ID NO 779  
LENGTH: 1456  
TYPE: DNA  
ORGANISM: Homo sapiens  
FEATURE:  
NAME/KEY: misc\_feature  
OTHER INFORMATION: Incyte ID No. 6673549 1384716.4  
LOCATION: 1453  
OTHER INFORMATION: a, t, c, g, or other  
US-09-976-594-779

Query Match 0.4%; Score 20; DB 4; Length 1456;  
Best Local Similarity 100.0%; Pred. No. 15;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4827 CAATCCACCGTCTCCAGGA 4846

Db 425 CAACTCCACCGTCTCCAGGA 406

## RESULT 9

US-08-630-915A-31  
Sequence 31, Application US/08630915A  
Patent No. 6309820  
GENERAL INFORMATION:  
APPLICANT: SPARKS, Andrew B.  
APPLICANT: HOFFMAN, No. 6309820h  
APPLICANT: KAY, Brian K.  
APPLICANT: FOWLES, Dana M.  
APPLICANT: MCCONNELL, Stephen J.  
TITLE OF INVENTION: POLYPEPTIDES HAVING A FUNCTIONAL  
TITLE OF INVENTION: DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND  
TITLE OF INVENTION: USING SAME  
NUMBER OF SEQUENCES: 227  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Pennie & Edmonds LLP  
STREET: 1155 Avenue of the Americas  
CITY: New York  
STATE: New York  
COUNTRY: USA  
ZIP: 10036-2711  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/630,915A  
FILING DATE: 03-APR-1996  
CLASSIFICATION: 536  
ATTORNEY/AGENT INFORMATION:  
NAME: Mistrock, S. Leslie  
REGISTRATION NUMBER: 18,872  
REFERENCE/DOCKET NUMBER: 1101-174  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (212) 790-9090  
TELEFAX: (212) 869-8864/9741  
TELEX: 66141 PENNIE  
INFORMATION FOR SEQ ID NO: 31:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1636 bases  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: DNA  
US-08-630-915A-31

Query Match 0.4%; Score 20; DB 4; Length 1636;  
Best Local Similarity 100.0%; Pred. No. 15;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 4179 GCTGCAGACCAAGCTGAGT 4198  
DB 863 GCTGCAGACCAAGCTGAGT 882

RESULT 10  
US-09-620-312D-702/c  
Sequence 702, Application US/09620312D  
Patent No. 6569662  
GENERAL INFORMATION:  
APPLICANT: Tang, Y. Tom  
APPLICANT: Liu, Chenghua  
APPLICANT: Asundi, Vinod  
APPLICANT: Zhang, Jie  
APPLICANT: Ren, Feiyun  
APPLICANT: Chen, Rui-hong  
APPLICANT: Zhao, Qing A.  
APPLICANT: Wehrman, Tom

APPLICANT: Xue, Aidong J.  
APPLICANT: Yang, Yonghong  
APPLICANT: Wang, Jian-Rui  
APPLICANT: Zhou, Ping  
APPLICANT: Ma, Yungang  
APPLICANT: Wang, Dunru  
APPLICANT: Wang, Zhiwei  
APPLICANT: John Tillinghaast  
APPLICANT: Dymanac, Radoje T.  
TITLE OF INVENTION: Polypeptides  
TITLE OF INVENTION: Polypeptides  
FILE REFERENCE: 784CIPB  
CURRENT APPLICATION NUMBER: US/09/620,312D  
CURRENT FILING DATE: 2000-07-19  
PRIOR APPLICATION NUMBER: 09/552,317  
PRIOR FILING DATE: 2000-04-25  
PRIOR APPLICATION NUMBER: 09/488,725  
PRIOR FILING DATE: 2000-01-21  
NUMBER OF SEQ ID NOS: 1105  
SOFTWARE: PC\_F1\_genes Version 1.0  
SEQ ID NO 702  
LENGTH: 2522  
TYPE: DNA  
ORGANISM: Homo sapiens  
FEATURE:  
NAME/KEY: CDS  
LOCATION: (179)..(1606)  
US-09-620-312D-702

Query Match 0.4%; Score 20; DB 4; Length 2522;  
Best Local Similarity 100.0%; Pred. No. 15;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1888 CACCATGCTGTAAGCTTCA 1907  
DB 517 CACCATGCTGTAAGCTTCA 498

RESULT 11  
US-09-105-537-30/c  
Sequence 30, Application US/09105537A  
Patent No. 6265202  
GENERAL INFORMATION:  
APPLICANT: Sherman, D.H.  
APPLICANT: Liu, H.  
APPLICANT: Xue, Y.  
APPLICANT: Zhao, L.  
TITLE OF INVENTION: DNA encoding methymycin and pikromycin  
FILE REFERENCE: 600.438US1  
CURRENT APPLICATION NUMBER: US/09/105,537A  
CURRENT FILING DATE: 1998-06-26  
NUMBER OF SEQ ID NOS: 43  
SOFTWARE: FastSeq for Windows Version 3.0  
SEQ ID NO 30  
LENGTH: 13842  
TYPE: DNA  
ORGANISM: Streptomyces venezuelae  
US-09-105-537-30

Query Match 0.4%; Score 20; DB 3; Length 13842;  
Best Local Similarity 100.0%; Pred. No. 16;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4828 AACTCCACCGTCTCCAGGAC 4847  
DB 10196 AACTCCACCGTCTCCAGGAC 10177

RESULT 12  
US-09-105-537-5/c  
Sequence 5, Application US/09105537A  
Patent No. 6265202  
GENERAL INFORMATION:

APPLICANT: Sherman, D.H.  
APPLICANT: Liu, H.  
APPLICANT: Xue, Y.  
APPLICANT: Zhao, L.  
TITLE OF INVENTION: DNA encoding methymycin and pikromycin  
FILE REFERENCE: 600,438US1  
CURRENT APPLICATION NUMBER: US/09/105,537A  
CURRENT FILING DATE: 1998-06-26  
NUMBER OF SEQ ID NOS: 43  
SOFTWARE: FastSeq for Windows Version 3.0  
SEQ ID NO 5  
LENGTH: 36778  
TYPE: DNA  
ORGANISM: Streptomyces venezuelae  
US-09-105-537-5

Query Match 0.4%; Score 20; DB 3; Length 36778;  
Best Local Similarity 100.0%; Pred. No. 17;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4828 AACTCCACCGCTCTCCAGGAC 4847  
DB 11937 AACTCCACCGCTCTCCAGGAC 11918

RESULT 13  
US-09-320-878-19/c  
Sequence 19, Application US/09320878A  
Patent No. 6117659  
GENERAL INFORMATION:  
APPLICANT: ASHLEY, Gary  
APPLICANT: BETLACH, Melanie C.  
APPLICANT: BETLACH, Mary C.  
APPLICANT: MCDANIEL, Robert  
APPLICANT: TANG, Li  
TITLE OF INVENTION: RECOMBINANT NARBONOLIDE POLYKETIDE SYNTHASE  
FILE REFERENCE: 300622002120  
CURRENT APPLICATION NUMBER: US/09/320,878A  
CURRENT FILING DATE: 1999-05-27  
EARLIER APPLICATION NUMBER: CIP OF 09/141,908  
EARLIER FILING DATE: 1998-08-28  
EARLIER APPLICATION NUMBER: CIP OF 09/073,538  
EARLIER FILING DATE: 1998-05-06  
EARLIER APPLICATION NUMBER: CIP OF 08/846,247  
EARLIER FILING DATE: 1997-04-30  
EARLIER APPLICATION NUMBER: 60/119,139  
EARLIER FILING DATE: 1999-02-08  
EARLIER APPLICATION NUMBER: 60/100,880  
EARLIER FILING DATE: 1998-09-22  
EARLIER APPLICATION NUMBER: 60/087,080  
EARLIER FILING DATE: 1998-05-28  
NUMBER OF SEQ ID NOS: 34  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 19  
LENGTH: 38506  
TYPE: DNA  
ORGANISM: Streptomyces venezuelae  
US-09-320-878-19

Query Match 0.4%; Score 20; DB 3; Length 38506;  
Best Local Similarity 100.0%; Pred. No. 17;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4828 AACTCCACCGCTCTCCAGGAC 4847  
DB 10079 AACTCCACCGCTCTCCAGGAC 10060

RESULT 14  
US-09-141-908-1/c  
Sequence 1, Application US/09141908  
Patent No. 6503741  
GENERAL INFORMATION:

APPLICANT: ASHLEY, Gary  
APPLICANT: BETLACH, Melanie C.  
APPLICANT: BETLACH, Mary  
APPLICANT: MCDANIEL, Robert  
APPLICANT: TANG, Li  
TITLE OF INVENTION: Combinatorial Polyketide Libraries Produced Using a  
TITLE OF INVENTION: Modular PKS Gene Cluster as Scaffold  
FILE REFERENCE: 300622002100  
CURRENT APPLICATION NUMBER: US/09/141,908  
CURRENT FILING DATE: 1998-06-28  
EARLIER APPLICATION NUMBER: CIP OF 09/073,538  
EARLIER FILING DATE: 1998-05-06  
EARLIER APPLICATION NUMBER: CIP OF 08/846,247  
EARLIER FILING DATE: 1997-04-30  
EARLIER APPLICATION NUMBER: PROV. 60/076,919  
EARLIER FILING DATE: 1998-03-05  
EARLIER APPLICATION NUMBER: PROV. 60/087,080  
EARLIER FILING DATE: 1998-05-28  
NUMBER OF SEQ ID NOS: 31  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 1  
LENGTH: 38506  
TYPE: DNA  
ORGANISM: Streptomyces venezuelae  
US-09-141-908-1

Query Match 0.4%; Score 20; DB 4; Length 38506;  
Best Local Similarity 100.0%; Pred. No. 17;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4828 AACTCCACCGCTCTCCAGGAC 4847  
DB 10079 AACTCCACCGCTCTCCAGGAC 10060

RESULT 15  
US-09-657-440-19/c  
Sequence 19, Application US/09657440  
Patent No. 6509455  
GENERAL INFORMATION:  
APPLICANT: ASHLEY, Gary  
APPLICANT: BETLACH, Melanie C.  
APPLICANT: BETLACH, Mary C.  
APPLICANT: MCDANIEL, Robert  
APPLICANT: TANG, Li  
TITLE OF INVENTION: RECOMBINANT NARBONOLIDE POLYKETIDE SYNTHASE  
FILE REFERENCE: 300622002120  
CURRENT APPLICATION NUMBER: US/09/657,440  
CURRENT FILING DATE: 2000-09-07  
PRIOR APPLICATION NUMBER: 09/320,878  
PRIOR FILING DATE: 1999-05-27  
PRIOR APPLICATION NUMBER: CIP OF 09/141,908  
PRIOR FILING DATE: 1998-08-28  
NUMBER OF SEQ ID NOS: 34  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 19  
LENGTH: 38506  
TYPE: DNA  
ORGANISM: Streptomyces venezuelae  
US-09-657-440-19

Query Match 0.4%; Score 20; DB 4; Length 38506;  
Best Local Similarity 100.0%; Pred. No. 17;  
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4828 AACTCCACCGCTCTCCAGGAC 4847  
DB 10079 AACTCCACCGCTCTCCAGGAC 10060

Search completed: February 20, 2004, 09:38:27  
Job time : 290 secs

GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: February 20, 2004, 07:09:02 / Search time 1298 Seconds

(without alignments)  
15352.741 Million cell updates/sec

Title: US-09-964-956-12

Perfect score: 5691

Sequence: 1 atgaagcagctgcctgaa.....gcttagacagctgaataaa 5691

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Searched: 2308684 seqs, 1750822206 residues

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Minimum DB seq length: 0

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Published Applications NA:\*

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- 4: /cgn2\_6/prodata/2/pubpna/US06\_PUBCOMB.seq:\*
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- 6: /cgn2\_6/prodata/2/pubpna/PCTUS\_PUBCOMB.seq:\*
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- 14: /cgn2\_6/prodata/2/pubpna/US10B\_PUBCOMB.seq:\*
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- 17: /cgn2\_6/prodata/2/pubpna/US10C\_PUBCOMB.seq:\*
- 18: /cgn2\_6/prodata/2/pubpna/US60\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1108	19.5	3666	15	US-10-108-260A-802
2	793	13.9	2597	14	US-10-245-103-91
3	793	13.9	2597	14	US-10-245-107-91
4	793	13.9	2597	14	US-10-245-143-91
5	793	13.9	2597	14	US-10-245-171-91
6	793	13.9	2597	14	US-10-245-851-91
7	793	13.9	2597	14	US-10-245-883-91
8	793	13.9	2597	14	US-10-237-535-91
9	793	13.9	2597	14	US-10-238-183-91
10	793	13.9	2597	14	US-10-238-283-91
11	793	13.9	2597	14	US-10-238-370-91
12	793	13.9	2597	14	US-10-245-055-91
13	793	13.9	2597	14	US-10-245-147-91
14	793	13.9	2597	14	US-10-245-730-91
15	793	13.9	2597	14	US-10-245-739-91

16	793	13.9	2597	14	US-10-246-210-91	Sequence 91, Appl
17	793	13.9	2597	14	US-10-239-196-91	Sequence 91, Appl
18	793	13.9	2597	14	US-10-243-024-91	Sequence 91, Appl
19	793	13.9	2597	14	US-10-243-409-91	Sequence 91, Appl
20	793	13.9	2597	14	US-10-245-621-91	Sequence 91, Appl
21	793	13.9	2597	14	US-10-245-880-91	Sequence 91, Appl
22	793	13.9	2597	14	US-10-245-033-91	Sequence 91, Appl
23	793	13.9	2597	14	US-10-243-095-91	Sequence 91, Appl
24	793	13.9	2597	14	US-10-245-185-91	Sequence 91, Appl
25	793	13.9	2597	14	US-10-245-427-91	Sequence 91, Appl
26	793	13.9	2597	14	US-10-245-473-91	Sequence 91, Appl
27	793	13.9	2597	14	US-10-245-770-91	Sequence 91, Appl
28	793	13.9	2597	14	US-10-246-976-91	Sequence 91, Appl
29	793	13.9	2597	14	US-10-243-320-91	Sequence 91, Appl
30	793	13.9	2597	14	US-10-242-743-91	Sequence 91, Appl
31	793	13.9	2597	14	US-10-242-845-91	Sequence 91, Appl
32	793	13.9	2597	14	US-10-237-636-91	Sequence 91, Appl
33	793	13.9	2597	14	US-10-238-325-91	Sequence 91, Appl
34	793	13.9	2597	14	US-10-238-346-91	Sequence 91, Appl
35	793	13.9	2597	14	US-10-238-411-91	Sequence 91, Appl
36	793	13.9	2597	14	US-10-243-124-91	Sequence 91, Appl
37	793	13.9	2597	14	US-10-244-947-91	Sequence 91, Appl
38	793	13.9	2597	14	US-10-244-968-91	Sequence 91, Appl
39	793	13.9	2597	14	US-10-244-990-91	Sequence 91, Appl
40	793	13.9	2597	14	US-10-245-874-91	Sequence 91, Appl
41	793	13.9	2597	14	US-10-242-653-91	Sequence 91, Appl
42	793	13.9	2597	14	US-10-243-167-91	Sequence 91, Appl
43	793	13.9	2597	14	US-10-243-388-91	Sequence 91, Appl
44	793	13.9	2597	14	US-10-244-947-91	Sequence 91, Appl
45	793	13.9	2597	14	US-10-245-693-91	Sequence 91, Appl
46	793	13.9	2597	14	US-10-245-733-91	Sequence 91, Appl
47	793	13.9	2597	14	US-10-245-127-91	Sequence 91, Appl
48	793	13.9	2597	14	US-10-245-207-91	Sequence 91, Appl
49	793	13.9	2597	14	US-10-245-646-91	Sequence 91, Appl
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52	793	13.9	2597	14	US-10-245-733-91	Sequence 91, Appl
53	793	13.9	2597	14	US-10-245-890-91	Sequence 91, Appl
54	793	13.9	2597	14	US-10-245-890-91	Sequence 91, Appl
55	793	13.9	2597	14	US-10-245-899-91	Sequence 91, Appl
56	793	13.9	2597	14	US-10-245-899-91	Sequence 91, Appl
57	793	13.9	2597	14	US-10-245-058-91	Sequence 91, Appl
58	793	13.9	2597	14	US-10-245-454-91	Sequence 91, Appl
59	793	13.9	2597	14	US-10-237-471-91	Sequence 91, Appl
60	793	13.9	2597	14	US-10-238-261-91	Sequence 91, Appl
61	793	13.9	2597	14	US-10-241-860-91	Sequence 91, Appl
62	793	13.9	2597	14	US-10-242-172-91	Sequence 91, Appl
63	793	13.9	2597	14	US-10-242-652-91	Sequence 91, Appl
64	793	13.9	2597	14	US-10-242-990-91	Sequence 91, Appl
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66	793	13.9	2597	14	US-10-243-023-91	Sequence 91, Appl
67	793	13.9	2597	14	US-10-243-103-91	Sequence 91, Appl
68	793	13.9	2597	14	US-10-243-276-91	Sequence 91, Appl
69	793	13.9	2597	14	US-10-243-326-91	Sequence 91, Appl
70	793	13.9	2597	14	US-10-243-364-91	Sequence 91, Appl
71	793	13.9	2597	14	US-10-243-494-91	Sequence 91, Appl
72	793	13.9	2597	14	US-10-244-995-91	Sequence 91, Appl
73	793	13.9	2597	14	US-10-245-253-91	Sequence 91, Appl
74	793	13.9	2597	14	US-10-245-479-91	Sequence 91, Appl
75	793	13.9	2597	14	US-10-245-499-91	Sequence 91, Appl
76	793	13.9	2597	14	US-10-245-772-91	Sequence 91, Appl
77	793	13.9	2597	14	US-10-245-811-91	Sequence 91, Appl
78	793	13.9	2597	14	US-10-245-812-91	Sequence 91, Appl
79	793	13.9	2597	14	US-10-245-875-91	Sequence 91, Appl
80	793	13.9	2597	14	US-10-245-882-91	Sequence 91, Appl
81	793	13.9	2597	14	US-10-245-913-91	Sequence 91, Appl
82	793	13.9	2597	14	US-10-246-080-91	Sequence 91, Appl
83	793	13.9	2597	14	US-10-246-121-91	Sequence 91, Appl
84	793	13.9	2597	14	US-10-246-305-91	Sequence 91, Appl
85	793	13.9	2597	14		
86	793	13.9	2597	14		
87	793	13.9	2597	14		
88	793	13.9	2597	14		

89	793	13.9	2597	14	US-10-246-929-91	Sequence 91, Appl	C 162	20	0.4	482	10	US-09-918-995-20880	Sequence 20880, A
90	793	13.9	2597	14	US-10-247-036-91	Sequence 91, Appl	C 163	20	0.4	495	10	US-09-918-995-27967	Sequence 27967, A
91	793	13.9	2597	14	US-10-243-255-91	Sequence 91, Appl	C 164	20	0.4	508	15	US-10-027-632-286030	Sequence 286030, A
92	793	13.9	2597	14	US-10-245-810-91	Sequence 91, Appl	C 165	20	0.4	512	15	US-10-242-535A-17598	Sequence 17598, A
93	793	13.9	2597	14	US-10-245-910-91	Sequence 91, Appl	C 166	20	0.4	529	15	US-10-424-599-82975	Sequence 82975, A
94	793	13.9	2597	14	US-10-246-098-91	Sequence 91, Appl	C 167	20	0.4	595	15	US-10-027-632-286031	Sequence 286031, A
95	793	13.9	2597	14	US-10-237-996-91	Sequence 91, Appl	C 168	20	0.4	616	10	US-09-871-161-238	Sequence 238, App
96	793	13.9	2597	14	US-10-242-074-91	Sequence 91, Appl	C 169	20	0.4	700	9	US-09-880-107-2398	Sequence 3298, App
97	793	13.9	2597	14	US-10-242-505-91	Sequence 91, Appl	C 170	20	0.4	792	15	US-10-264-049-2020	Sequence 2020, App
98	793	13.9	2597	14	US-10-242-574-91	Sequence 91, Appl	C 171	20	0.4	1221	15	US-10-027-632-123804	Sequence 123804, App
99	793	13.9	2597	14	US-10-243-261-91	Sequence 91, Appl	C 172	20	0.4	1320	9	US-09-815-244-9619	Sequence 9619, A
100	793	13.9	2597	14	US-10-243-282-91	Sequence 91, Appl	C 173	20	0.4	1320	12	US-10-282-122A-39204	Sequence 39204, A
101	793	13.9	2597	14	US-10-243-402-91	Sequence 91, Appl	C 174	20	0.4	1336	9	US-09-879-957-31	Sequence 31, Appl
102	793	13.9	2597	14	US-10-243-431-91	Sequence 91, Appl	C 175	20	0.4	1536	9	US-10-037-270-702	Sequence 702, App
103	793	13.9	2597	14	US-10-245-164-91	Sequence 91, Appl	C 176	20	0.4	2522	14	US-10-117-722-702	Sequence 702, App
104	793	13.9	2597	14	US-10-244-972-91	Sequence 91, Appl	C 177	20	0.4	2522	15	US-10-117-722-702	Sequence 702, App
105	793	13.9	2597	14	US-10-197-942-91	Sequence 91, Appl	C 178	20	0.4	2564	15	US-10-104-047-479	Sequence 279, App
106	793	13.9	2597	14	US-10-238-196-91	Sequence 91, Appl	C 179	20	0.4	6252	9	US-09-964-824A-113	Sequence 28601, A
107	793	13.9	2597	14	US-10-245-013-91	Sequence 91, Appl	C 180	20	0.4	6252	10	US-09-930-213-354	Sequence 254, App
108	793	13.9	2597	14	US-10-029-386-25270	Sequence 25270, A	C 181	20	0.4	13842	9	US-09-861-289-30	Sequence 30, Appl
109	793	13.9	2597	14	US-09-864-761-13115	Sequence 13115, A	C 182	20	0.4	13842	9	US-09-860-846-30	Sequence 30, Appl
110	793	13.9	2597	14	US-09-864-761-2878	Sequence 2878, A	C 183	20	0.4	13842	10	US-09-988-384B-30	Sequence 30, Appl
111	793	13.9	2597	14	US-10-104-047-570	Sequence 570, App	C 184	20	0.4	13842	10	US-09-835-821-30	Sequence 30, Appl
112	793	13.9	2597	14	US-10-029-386-11563	Sequence 11563, A	C 185	20	0.4	13842	14	US-10-271-889-30	Sequence 30, Appl
113	793	13.9	2597	14	US-10-027-632-162706	Sequence 162706, A	C 186	20	0.4	36778	9	US-09-861-289-30	Sequence 30, Appl
114	793	13.9	2597	14	US-10-029-386-3047	Sequence 3047, App	C 187	20	0.4	36778	9	US-09-860-846-5	Sequence 5, Appl
115	793	13.9	2597	14	US-10-087-684-91	Sequence 31, Appl	C 188	20	0.4	36778	10	US-09-836-821-5	Sequence 5, Appl
116	793	13.9	2597	14	US-10-218-779-91	Sequence 31, Appl	C 189	20	0.4	36778	14	US-10-271-889-48	Sequence 48, Appl
117	793	13.9	2597	14	US-09-864-761-29792	Sequence 29792, A	C 190	20	0.4	37948	10	US-09-988-384B-5	Sequence 5, Appl
118	793	13.9	2597	14	US-09-864-761-13223	Sequence 13223, A	C 191	20	0.4	38506	10	US-09-793-708-19	Sequence 5, Appl
119	793	13.9	2597	14	US-10-029-386-16713	Sequence 16713, A	C 192	20	0.4	38506	10	US-10-201-385-1	Sequence 19, Appl
120	793	13.9	2597	14	US-09-918-995-28153	Sequence 28153, A	C 193	20	0.4	88421	9	US-10-160-539-19	Sequence 19, Appl
121	793	13.9	2597	14	US-10-029-386-16713	Sequence 16713, A	C 194	20	0.4	659159	9	US-09-976-059-1	Sequence 1, Appl
122	793	13.9	2597	14	US-09-918-995-28153	Sequence 28153, A	C 195	20	0.4	111	9	US-09-771-208-20	Sequence 20, Appl
123	793	13.9	2597	14	US-10-029-386-3013	Sequence 3013, App	C 196	20	0.3	464	10	US-09-918-995-7305	Sequence 7305, App
124	793	13.9	2597	14	US-10-029-386-3013	Sequence 3013, App	C 197	20	0.3	513	14	US-10-029-386-6765	Sequence 6765, App
125	793	13.9	2597	14	US-10-029-386-3013	Sequence 3013, App	C 198	20	0.3	635	15	US-10-027-632-107303	Sequence 107303, App
126	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 199	20	0.3	637	15	US-10-027-632-159288	Sequence 159288, App
127	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 200	20	0.3	637	15	US-10-027-632-159288	Sequence 159288, App
128	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 201	20	0.3	637	15	US-10-027-632-104013	Sequence 104013, App
129	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 202	20	0.3	637	15	US-10-027-632-133807	Sequence 133807, App
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134	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 207	20	0.3	751	15	US-10-027-632-133807	Sequence 133807, App
135	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 208	20	0.3	751	15	US-10-027-632-133807	Sequence 133807, App
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157	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 230	20	0.3	751	15	US-10-027-632-133807	Sequence 133807, App
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159	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 232	20	0.3	751	15	US-10-027-632-133807	Sequence 133807, App
160	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 233	20	0.3	751	15	US-10-027-632-133807	Sequence 133807, App
161	793	13.9	2597	14	US-10-027-632-107303	Sequence 107303, App	C 234	20	0.3	751	15	US-10-027-632-133807	Sequence 133807, App

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236	19	0.3	2477	10	US-09-907-613-169	Sequence 169, App	309	19	0.3	2477	14	US-10-121-050-331	Sequence 331, App
237	19	0.3	2477	10	US-09-907-944-169	Sequence 169, App	310	19	0.3	2477	14	US-10-141-755-331	Sequence 331, App
238	19	0.3	2477	10	US-09-904-859-169	Sequence 169, App	311	19	0.3	2477	14	US-10-143-032-331	Sequence 331, App
239	19	0.3	2477	10	US-09-909-284-169	Sequence 169, App	312	19	0.3	2477	14	US-10-123-108-331	Sequence 331, App
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241	19	0.3	2477	10	US-09-904-768-169	Sequence 169, App	314	19	0.3	2477	14	US-10-123-261-331	Sequence 331, App
242	19	0.3	2477	10	US-09-906-646-169	Sequence 169, App	315	19	0.3	2477	14	US-10-140-921-331	Sequence 331, App
243	19	0.3	2477	10	US-09-906-700-169	Sequence 169, App	316	19	0.3	2477	14	US-10-121-045-331	Sequence 331, App
244	19	0.3	2477	10	US-09-903-786-169	Sequence 169, App	317	19	0.3	2477	14	US-10-123-292-331	Sequence 331, App
245	19	0.3	2477	10	US-09-902-903-169	Sequence 169, App	318	19	0.3	2477	14	US-10-123-903-331	Sequence 331, App
246	19	0.3	2477	10	US-09-903-749A-169	Sequence 169, App	319	19	0.3	2477	14	US-10-124-819-331	Sequence 331, App
247	19	0.3	2477	10	US-09-904-119-169	Sequence 169, App	320	19	0.3	2477	14	US-10-124-822-331	Sequence 331, App
248	19	0.3	2477	10	US-09-904-986-169	Sequence 169, App	321	19	0.3	2477	14	US-10-127-839A-331	Sequence 331, App
249	19	0.3	2477	10	US-09-902-736-169	Sequence 169, App	322	19	0.3	2477	14	US-10-140-925-331	Sequence 331, App
250	19	0.3	2477	10	US-09-907-794-169	Sequence 169, App	323	19	0.3	2477	14	US-10-140-928-331	Sequence 331, App
251	19	0.3	2477	10	US-09-903-944-169	Sequence 169, App	324	19	0.3	2477	14	US-10-114-824-331	Sequence 331, App
252	19	0.3	2477	10	US-09-904-462-169	Sequence 169, App	325	19	0.3	2477	14	US-10-127-825A-331	Sequence 331, App
253	19	0.3	2477	10	US-09-907-925-169	Sequence 169, App	326	19	0.3	2477	14	US-10-127-829A-331	Sequence 331, App
254	19	0.3	2477	10	US-09-902-699-169	Sequence 169, App	327	19	0.3	2477	14	US-10-127-835A-331	Sequence 331, App
255	19	0.3	2477	10	US-09-902-520-169	Sequence 169, App	328	19	0.3	2477	14	US-10-127-839A-331	Sequence 331, App
256	19	0.3	2477	10	US-09-905-056-169	Sequence 169, App	329	19	0.3	2477	14	US-10-127-839A-331	Sequence 331, App
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258	19	0.3	2477	10	US-09-904-553-169	Sequence 169, App	331	19	0.3	2477	14	US-10-118-693A-331	Sequence 331, App
259	19	0.3	2477	10	US-09-905-088-169	Sequence 169, App	332	19	0.3	2477	14	US-10-111-818A-331	Sequence 331, App
260	19	0.3	2477	10	US-09-905-088-169	Sequence 169, App	333	19	0.3	2477	14	US-10-111-823A-331	Sequence 331, App
261	19	0.3	2477	10	US-09-907-575-169	Sequence 169, App	334	19	0.3	2477	14	US-10-131-824A-331	Sequence 331, App
262	19	0.3	2477	10	US-09-905-075-169	Sequence 169, App	335	19	0.3	2477	14	US-10-131-830A-331	Sequence 331, App
263	19	0.3	2477	10	US-09-902-736-169	Sequence 169, App	336	19	0.3	2477	14	US-10-117-872A-331	Sequence 331, App
264	19	0.3	2477	10	US-09-902-634-169	Sequence 169, App	337	19	0.3	2477	14	US-10-117-872A-331	Sequence 331, App
265	19	0.3	2477	10	US-09-902-713-169	Sequence 169, App	338	19	0.3	2477	14	US-10-147-500-331	Sequence 331, App
266	19	0.3	2477	10	US-09-907-979-169	Sequence 169, App	339	19	0.3	2477	14	US-10-147-502-331	Sequence 331, App
267	19	0.3	2477	10	US-09-907-979-169	Sequence 169, App	340	19	0.3	2477	14	US-10-147-502-331	Sequence 331, App
268	19	0.3	2477	10	US-09-903-925-169	Sequence 169, App	341	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
269	19	0.3	2477	10	US-09-906-760A-169	Sequence 169, App	342	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
270	19	0.3	2477	10	US-09-903-823-169	Sequence 169, App	343	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
271	19	0.3	2477	10	US-09-907-652-169	Sequence 169, App	344	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
272	19	0.3	2477	10	US-09-902-572A-169	Sequence 169, App	345	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
273	19	0.3	2477	10	US-09-902-979-169	Sequence 169, App	346	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
274	19	0.3	2477	10	US-09-905-125-169	Sequence 169, App	347	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
275	19	0.3	2477	10	US-09-906-815A-169	Sequence 169, App	348	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
276	19	0.3	2477	10	US-09-903-449-169	Sequence 169, App	349	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
277	19	0.3	2477	10	US-09-903-805-169	Sequence 169, App	350	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
278	19	0.3	2477	10	US-09-904-992-169	Sequence 169, App	351	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
279	19	0.3	2477	10	US-09-904-838-169	Sequence 169, App	352	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
280	19	0.3	2477	10	US-09-906-777-169	Sequence 169, App	353	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
281	19	0.3	2477	10	US-09-903-603A-169	Sequence 169, App	354	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
282	19	0.3	2477	10	US-09-904-532-169	Sequence 169, App	355	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
283	19	0.3	2477	10	US-09-904-766-169	Sequence 169, App	356	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
284	19	0.3	2477	10	US-09-904-920A-169	Sequence 169, App	357	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
285	19	0.3	2477	10	US-09-904-877A-169	Sequence 169, App	358	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
286	19	0.3	2477	10	US-09-903-562-169	Sequence 169, App	359	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
287	19	0.3	2477	10	US-09-906-618-169	Sequence 169, App	360	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
288	19	0.3	2477	10	US-09-907-728-169	Sequence 169, App	361	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
289	19	0.3	2477	10	US-09-904-805-169	Sequence 169, App	362	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
290	19	0.3	2477	10	US-09-904-805-169	Sequence 169, App	363	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
291	19	0.3	2477	10	US-09-906-722A-169	Sequence 169, App	364	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
292	19	0.3	2477	10	US-09-908-576-169	Sequence 169, App	365	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
293	19	0.3	2477	10	US-09-908-576-169	Sequence 169, App	366	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
294	19	0.3	2477	10	US-09-908-576-169	Sequence 169, App	367	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
295	19	0.3	2477	10	US-09-908-576-169	Sequence 169, App	368	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
296	19	0.3	2477	10	US-09-908-576-169	Sequence 169, App	369	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
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299	19	0.3	2477	10	US-09-908-576-169	Sequence 169, App	372	19	0.3	2477	14	US-10-147-517-331	Sequence 331, App
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586	19	0.3	2477	14	US-10-145-960-331	Sequence 331, App	659	19	0.3	2477	14	US-10-162-806-331	Sequence 331, App
587	19	0.3	2477	14	US-10-145-962-331	Sequence 331, App	660	19	0.3	2477	14	US-10-162-810-331	Sequence 331, App
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593	19	0.3	2477	14	US-10-153-980-331	Sequence 331, App	666	19	0.3	2477	14	US-10-162-762-331	Sequence 331, App
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679	19	0.3	2477	15	US-10-146-794-331	Sequence 331, App	752	18	0.3	322	10	US-09-960-708-250	Sequence 250, App
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683	19	0.3	2477	15	US-10-147-537-331	Sequence 331, App	756	18	0.3	420	13	US-09-920-300A-1482	Sequence 1482, App
684	19	0.3	2477	15	US-10-152-376-331	Sequence 331, App	757	18	0.3	400	13	US-10-033-528-1482	Sequence 1482, App
685	19	0.3	2477	15	US-10-152-381-331	Sequence 331, App	758	18	0.3	420	14	US-10-099-928-1482	Sequence 1482, App
686	19	0.3	2477	15	US-10-152-400-331	Sequence 331, App	759	18	0.3	429	9	US-09-864-761-3100	Sequence 3180, App
687	19	0.3	2477	15	US-10-153-585-331	Sequence 331, App	760	18	0.3	429	12	US-10-424-599-2500	Sequence 2500, App
688	19	0.3	2477	15	US-10-153-585-331	Sequence 331, App	761	18	0.3	444	14	US-10-221-097-4	Sequence 4, App1
689	19	0.3	2477	15	US-10-157-800-331	Sequence 331, App	762	18	0.3	445	14	US-10-221-097-2	Sequence 2, App1
690	19	0.3	2477	15	US-10-157-801-331	Sequence 331, App	763	18	0.3	447	14	US-10-203-708-20	Sequence 20, App1
691	19	0.3	2477	15	US-10-157-802-331	Sequence 331, App	764	18	0.3	464	10	US-09-918-995-21601	Sequence 21601, A
692	19	0.3	2477	15	US-10-158-784-331	Sequence 331, App	765	18	0.3	468	15	US-10-115-479-7	Sequence 7, App1
693	19	0.3	2477	15	US-10-158-789-331	Sequence 331, App	766	18	0.3	470	9	US-09-864-761-5774	Sequence 5774, App
694	19	0.3	2477	15	US-10-152-011-331	Sequence 331, App	767	18	0.3	471	10	US-09-918-995-10117	Sequence 10117, A
695	19	0.3	2477	15	US-10-139-963-331	Sequence 331, App	768	18	0.3	477	14	US-10-221-097-3	Sequence 3, App1
696	19	0.3	2477	15	US-10-140-020-331	Sequence 331, App	769	18	0.3	480	12	US-10-282-122A-24702	Sequence 24702, A
697	19	0.3	2477	15	US-10-140-023-331	Sequence 331, App	770	18	0.3	481	12	US-10-424-599-132442	Sequence 132442, A
698	19	0.3	2477	15	US-10-140-809-331	Sequence 331, App	771	18	0.3	483	9	US-09-998-598-284	Sequence 284, App
699	19	0.3	2477	15	US-10-140-865-331	Sequence 331, App	772	18	0.3	486	12	US-10-282-122A-17405	Sequence 37405, A
700	19	0.3	2477	15	US-10-141-701-331	Sequence 331, App	773	18	0.3	492	10	US-09-918-995-32152	Sequence 32152, A
701	19	0.3	2477	15	US-10-141-754-331	Sequence 331, App	774	18	0.3	501	9	US-09-783-590-7276	Sequence 72609, App
702	19	0.3	2477	15	US-10-141-760-331	Sequence 331, App	775	18	0.3	501	10	US-09-918-995-28609	Sequence 29609, A
703	19	0.3	2477	15	US-10-142-425-331	Sequence 331, App	776	18	0.3	507	14	US-10-156-761-5172	Sequence 5172, App
704	19	0.3	2477	15	US-10-142-430-331	Sequence 331, App	777	18	0.3	509	15	US-10-259-194A-493	Sequence 493, App
705	19	0.3	2477	15	US-10-143-113-331	Sequence 331, App	778	18	0.3	510	14	US-10-029-386-8128	Sequence 8128, App
706	19	0.3	2477	15	US-10-143-730-331	Sequence 331, App	779	18	0.3	514	15	US-10-027-633-14734	Sequence 14734, A
707	19	0.3	2477	15	US-10-146-792-331	Sequence 331, App	780	18	0.3	520	9	US-09-780-717-36	Sequence 36, App1
708	19	0.3	2477	15	US-10-158-791-331	Sequence 331, App	781	18	0.3	526	9	US-09-873-134-1	Sequence 1, App1
709	19	0.3	2477	15	US-10-156-843-331	Sequence 331, App	782	18	0.3	526	14	US-10-124-090-1	Sequence 1, App1
710	19	0.3	2477	15	US-10-157-786-331	Sequence 331, App	783	18	0.3	555	15	US-10-027-633-105290	Sequence 105290, A
711	19	0.3	2477	15	US-10-147-528-331	Sequence 331, App	784	18	0.3	560	14	US-10-029-386-3104	Sequence 3104, App
712	19	0.3	2477	15	US-10-449-656-169	Sequence 169, App	785	18	0.3	565	15	US-10-027-633-114841	Sequence 114841, A
713	19	0.3	2477	15	US-10-448-713-169	Sequence 169, App	786	18	0.3	584	12	US-10-424-599-30460	Sequence 30460, A
714	19	0.3	2477	15	US-10-128-692A-331	Sequence 331, App	787	18	0.3	585	15	US-10-027-633-12963	Sequence 12963, A
715	19	0.3	2477	15	US-10-140-927-331	Sequence 331, App	788	18	0.3	601	15	US-10-027-633-189232	Sequence 189232, A
716	19	0.3	2477	16	US-10-425-447-169	Sequence 169, App	789	18	0.3	601	15	US-10-027-633-189233	Sequence 189233, A
717	19	0.3	2764	15	US-10-094-749-652	Sequence 652, App	790	18	0.3	607	15	US-10-027-633-210232	Sequence 210232, A
718	19	0.3	2942	15	US-10-108-260A-599	Sequence 599, App	791	18	0.3	611	15	US-10-027-633-229213	Sequence 229213, A
719	19	0.3	2965	9	US-09-633-381-1216	Sequence 1216, App	792	18	0.3	628	12	US-10-424-599-217604	Sequence 217604, A
720	19	0.3	2997	15	US-10-094-749-73	Sequence 73, App1	793	18	0.3	633	12	US-10-282-122A-17609	Sequence 17609, A
721	19	0.3	3458	12	US-10-094-599-11455	Sequence 11455, A	794	18	0.3	642	10	US-09-764-891-40	Sequence 40, App1
722	19	0.3	3458	12	US-10-094-749-927	Sequence 927, App	795	18	0.3	655	15	US-10-027-633-13305	Sequence 13305, A
723	19	0.3	4474	14	US-10-115-515-9	Sequence 9, App1	796	18	0.3	655	15	US-10-027-633-134264	Sequence 134264, A
724	19	0.3	5440	10	US-09-764-891-7928	Sequence 7928, App	797	18	0.3	675	15	US-10-027-633-21653	Sequence 21653, A
725	19	0.3	5440	10	US-09-764-891-7930	Sequence 7930, App	798	18	0.3	759	9	US-09-910-664-117	Sequence 117, App
726	19	0.3	15856	10	US-09-764-891-8240	Sequence 8240, App	799	18	0.3	797	15	US-10-388-933-553	Sequence 553, App
727	19	0.3	20300	10	US-09-939-209A-3	Sequence 3, App1	800	18	0.3	803	13	US-10-027-633-17253	Sequence 17253, A
728	19	0.3	30310	9	US-09-600-631-96	Sequence 96, App1	801	18	0.3	814	9	US-09-780-717-374	Sequence 374, App1
729	19	0.3	30310	14	US-10-293-783-96	Sequence 96, App1	802	18	0.3	816	9	US-09-864-761-30745	Sequence 30745, A
730	19	0.3	30310	15	US-10-388-263-745	Sequence 745, App	803	18	0.3	832	9	US-09-864-761-3100	Sequence 3100, App
731	19	0.3	30781	14	US-10-092-908-37	Sequence 37, App1	804	18	0.3	840	15	US-10-398-221-138	Sequence 138, App
732	19	0.3	48019	15	US-10-174-175-12	Sequence 12, App1	805	18	0.3	849	9	US-09-974-300-2759	Sequence 2759, App
733	19	0.3	60196	14	US-10-205-032-1	Sequence 1, App1	806	18	0.3	860	12	US-10-424-599-115360	Sequence 115360, A
734	19	0.3	268685	14	US-10-265-071-22	Sequence 22, App1	807	18	0.3	873	14	US-10-074-511-46	Sequence 46, App1
735	19	0.3	268685	14	US-10-025-966A-22	Sequence 22, App1	808	18	0.3	899	14	US-10-054-683-30	Sequence 30, App1
736	19	0.3	536155	10	US-09-939-964-1	Sequence 1, App1	809	18	0.3	906	14	US-10-198-846-1617	Sequence 12617, A
737	19	0.3	902808	14	US-10-156-761-1	Sequence 1, App1	810	18	0.3	961	13	US-10-063-587-143	Sequence 143, App
738	18	0.3	71	14	US-10-223-666-214	Sequence 214, App	811	18	0.3	961	13	US-10-063-587-143	Sequence 143, App
739	18	0.3	164	9	US-09-864-761-22335	Sequence 22335, A	812	18	0.3	961	14	US-10-063-616-143	Sequence 143, App
740	18	0.3	181	15	US-10-242-535A-19645	Sequence 19645, A	813	18	0.3	961	14	US-10-063-587-143	Sequence 143, App
741	18	0.3	245	15	US-10-242-535A-15007	Sequence 45007, A	814	18	0.3	961	14	US-10-227-608-221	Sequence 221, App
742	18	0.3	258	10	US-09-764-891-189	Sequence 189, App	815	18	0.3	961	14	US-10-230-338-221	Sequence 221, App
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744	18	0.3	267	9	US-09-923-876-6112	Sequence 6112, App	817	18	0.3	961	14	US-10-218-631-221	Sequence 221, App
745	18	0.3	267	11	US-09-923-876-6112	Sequence 6112, App	818	18	0.3	961	14	US-10-063-516-143	Sequence 143, App

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C 891	18	0.3	961	14	US-10-232-222-221	Sequence 221, App	C 964	18	0.3	961	14	US-10-063-607-143	Sequence 143, App

C 965	18	0.3	961	14	US-10-063-112-143	Sequence 143	App
C 966	18	0.3	961	14	US-10-063-115-143	Sequence 143	App
C 967	18	0.3	961	14	US-10-063-140-143	Sequence 143	App
C 968	18	0.3	961	14	US-10-063-142-143	Sequence 143	App
C 969	18	0.3	961	14	US-10-063-144-143	Sequence 143	App
C 970	18	0.3	961	14	US-10-063-149-143	Sequence 143	App
C 971	18	0.3	961	14	US-10-063-150-143	Sequence 143	App
C 972	18	0.3	961	14	US-10-063-152-143	Sequence 143	App
C 973	18	0.3	961	14	US-10-063-154-143	Sequence 143	App
C 974	18	0.3	961	14	US-10-063-159-143	Sequence 143	App
C 975	18	0.3	961	14	US-10-063-161-143	Sequence 143	App
C 976	18	0.3	961	14	US-10-063-128-143	Sequence 143	App
C 977	18	0.3	961	14	US-10-063-140-143	Sequence 143	App
C 978	18	0.3	961	14	US-10-063-168-143	Sequence 143	App
C 979	18	0.3	961	14	US-10-063-170-143	Sequence 143	App
C 980	18	0.3	961	14	US-10-063-182-143	Sequence 143	App
C 981	18	0.3	961	14	US-10-063-197-143	Sequence 143	App
C 982	18	0.3	961	14	US-10-063-192-143	Sequence 143	App
C 983	18	0.3	961	14	US-10-063-197-143	Sequence 143	App
C 984	18	0.3	961	14	US-10-063-602-143	Sequence 143	App
C 985	18	0.3	961	14	US-10-063-606-143	Sequence 143	App
C 986	18	0.3	961	14	US-10-063-609-143	Sequence 143	App
C 987	18	0.3	961	14	US-10-063-611-143	Sequence 143	App
C 988	18	0.3	961	14	US-10-063-614-143	Sequence 143	App
C 989	18	0.3	961	14	US-10-063-639-143	Sequence 143	App
C 990	18	0.3	961	14	US-10-063-643-143	Sequence 143	App
C 991	18	0.3	961	14	US-10-063-646-143	Sequence 143	App
C 992	18	0.3	961	14	US-10-063-651-143	Sequence 143	App
C 993	18	0.3	961	14	US-10-063-653-143	Sequence 143	App
C 994	18	0.3	961	14	US-10-063-660-143	Sequence 143	App
C 995	18	0.3	961	14	US-10-063-665-143	Sequence 143	App
C 996	18	0.3	961	14	US-10-063-684-143	Sequence 143	App
C 997	18	0.3	961	14	US-10-063-636-143	Sequence 143	App
C 998	18	0.3	961	14	US-10-063-642-143	Sequence 143	App
C 999	18	0.3	961	14	US-10-063-638-143	Sequence 143	App
C 1000	18	0.3	961	14	US-10-063-666-143	Sequence 143	App

## ALIGNMENTS

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RESULT 1
US-10-108-260A-802
; Sequence 802, Application US/10108260A
; Publication No. US20040005560A1
; GENERAL INFORMATION:
; APPLICANT: HELIX RESEARCH INSTITUTE
; TITLE OF INVENTION: No. US20040005560a1 full length cDNA
; FILE REFERENCE: H1-A0106
; CURRENT APPLICATION NUMBER: US/10/108,260A
; CURRENT FILING DATE: 2002-03-27
; NUMBER OF SEQ ID NOS: 5458
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 802
; LENGTH: 3666
; TYPE: DNA
; ORGANISM: Homo sapiens
; US-10-108-260A-802

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	Query Match	19.5%;	Score 1108;	DB 15;	Length 3666;
	Best Local Similarity	99.9%;	Pred. No. 0;		
	Matches 1186;	Conservative	0;	Mismatches 1;	Indels 0;
			Gaps 0;		
QY	4527	TGCGAACAAGCCCGAGAGTCCAGTAAAGATCTTCACTGTGAACACATCACTTAGTCA	4588		
Db	1	TGCGAACAAGCCCGAGTCCAGTAAAGATCTTCACTGTGAACACATCACTTAGTCA	60		
QY	4587	GGAGAAGATTGTGATGACCATCTTAAAGATGTGCTGTGCCACCGGCGCCAAAGTTC	4646		
Db	61	GGAGAAGATTGTGATGACCATCTTAAAGATGTGCTGTGCCACCGGCGCCAAAGTTC	120		
QY	4647	AGATATGATCTTGAGAGTGGCGACAGAAAGTGGGCGAAGATGATCTTGCAGATGACA	4706		

Db	121	AGATATGATCTGGAGTGGCGAACAAGGAATGGGGCAAGATGATCTTGGCAGGATGAGA	180
QY	4707	CATCACCAACAAGTTTGAAGATGTTGAAAGCGCATGAACAACCTGGCCCCCACTCAAGT	4766
Db	181	CATCACCAACAAGATTGAGATGTTGAAAGCGCATGAACAACCTGGCCCCCACTCAAGT	240
QY	4767	GCCAGATGATTCGGTGGGCATTTAGTGTCCAAAGAGTGAAGAGCTTATAACGCAATGAA	4826
Db	241	GCCAGATGATTCGGTGGGCATTTAGTGTCCAAAGAGTGAAGAGCTTATAACGCAATGAA	300
QY	4827	CAACTCCACCGTCTCCAGAGACCTCAGCAAGTAAATATGAAAAACAATGATCCGGTCAAGG	4886
Db	301	CAACTCCACCGTCTCCAGAGACCTCAGCAAGTAAATATGAAAAACAATGATCCGGTCAAGG	360
QY	4887	CAGCCCCGACAGCTCCGCTCAACGACACCTATGATCACTCTGACCTGAGAGTGAAGT	4946
Db	361	CAGCCCCGACAGCTCCGCTCAACGACACCTATGATCACTCTGACCTGAGAGATGAAGT	420
QY	4947	CAAGATTTGGCAACTATGAAAGAAACAACGAGACACGAGACCAAGAAGAGGGGGACCGGGG	5006
Db	421	CAAGATTTGGCAACTATGAAAGAAACAACGAGACACGAGACCAAGAAGAGGGGGACCGGGG	480
QY	5007	GAGCAAGATGATGTTCTGAATCTTACCTGAACCCGACTCTTGCCCACTTAAGGCAACCTGCA	5066
Db	481	GAGCAAGATGATGTTCTGAATCTTACCTGAACCCGACTCTTGCCCACTTAAGGCAACCTGCA	540
QY	5067	GAAATTTGTGGAATGACCTCTTTGAGACATCTTCAGACGGGCAACCGTGGCTGTGCCCT	5126
Db	541	GAAATTTGTGGAATGACCTCTTTGAGACATCTTCAGACGGGCAACCGTGGCTGTGCCCT	600
QY	5127	GCCCTTGGCCATCAAGATGATGTTGACTTCTTGAGAGACAGGCTGATTAACAATGSCAT	5186
Db	601	GCCCTTGGCCATCAAGATGATGTTGACTTCTTGAGAGAGAGGCTGATTAACAATGSCAT	660
QY	5187	TCATGACCCGCAAGTCGCGCATACCTGGAAGAGAGAAATGCTGGCCCTGAGGTTTGGGT	5246
Db	661	TCATGACCCGCAAGTCGCGCATACCTGGAAGAGAGAAATGCTGGCCCTGAGGTTTGGGT	720

RESULT 2  
US-10-245-103-91

QY	5247	CAACATATATCAAGAACCCCGAGTTGTGTTGACATCCATTAAGAACAGCATCAACAAGC	5306
Db	721	CAACATATATCAAGAACCCCGAGTTGTGTTGACATCCATTAAGAACAGCATCAACAAGC	780
QY	5307	CTGCCTCTCTGTGTGTGCTCAGACCTTCATGAGACTTGTCTCCAGTCGTAGACACCGACT	5366
Db	781	CTGCCTCTCTGTGTGTGCTCAGACCTTCATGAGACTTGTCTCCAGTCGTAGACACCGACT	840
QY	5367	GGGGAAGGACTCGCCCTCCAAAGAGTGCTGTATGCCAAGGACATCCCGAGCTACAAAGAA	5426
Db	841	GGGGAAGGACTCGCCCTCCAAAGAGTGCTGTATGCCAAGGACATCCCGAGCTACAAAGAA	900
QY	5427	TTGGGTGGAGAGGTATTAATCAACATATAGGAAGATCCAGCCATCAAGCGACCAAGACAT	5486
Db	901	TTGGGTGGAGAGGTATTAATCAACATATAGGAAGATCCAGCCATCAAGCGACCAAGACAT	960
QY	5487	GAACGCATACCTGGCTGAGCAGATCCCGAGTGCACATGAATGAGTTCAACACCATGATGTC	5546
Db	961	GAACGCATACCTGGCTGAGCAGATCCCGAGTGCACATGAATGAGTTCAACACCATGATGTC	1020
QY	5547	ACTCTCAGAGATCTTCTCCATATGTGGGCAAAATACAGGAGAGGAGATCCCTGGACCTTGGAA	5606
Db	1021	ACTCTCAGAGATCTTCTCCATATGTGGGCAAAATACAGGAGAGGAGATCCCTGGACCTTGGAA	1080
QY	5607	CCACGATGACCCAGTGTGGGAAAGCAAAACTGGCTTACAAACTAGAACAAAGTCATTAACCT	5666
Db	1081	CCACGATGACCCAGTGTGGGAAAGCAAAACTGGCTTACAAACTAGAACAAAGTCATTAACCT	1140
QY	5667	CATGAGCTTAGACAGCTTGA 5685	
Db	1141	CATGAGCTTAGACAGCTTGA 1159	

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/ Sequence 91, Application US/10245103
/ Publication No. US20030068779A1
/ GENERAL INFORMATION:
/ APPLICANT: Baker, Kevin
/ APPLICANT: Baton, Dan
/ APPLICANT: Filvaroff, Ellen
/ APPLICANT: Goddard, Audrey
/ APPLICANT: Grimaldi, J. Christopher
/ APPLICANT: Gurney, Austin
/ APPLICANT: Smith, Victoria
/ APPLICANT: Stephan, Jean-Philippe
/ APPLICANT: Watanabe, Colin
/ APPLICANT: Wood, William
/ APPLICANT: Zhang, Zemin
/ APPLICANT: Fong, Sherman
/ TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
/ FILE OF INVENTION: ACIDS ENCODING THE SAME
/ FILE REFERENCE: P3630R1C112
/ CURRENT APPLICATION NUMBER: US/10/245,103
/ PRIOR FILING DATE: 2002-09-17
/ PRIOR APPLICATION NUMBER: 10/197942
/ PRIOR FILING DATE: 2002-07-18
/ PRIOR APPLICATION NUMBER: 60/059114
/ PRIOR FILING DATE: 1997-09-17
/ PRIOR APPLICATION NUMBER: 60/063046
/ PRIOR FILING DATE: 1997-10-24
/ PRIOR APPLICATION NUMBER: 60/065027
/ PRIOR FILING DATE: 1997-11-10
/ PRIOR APPLICATION NUMBER: 60/079689
/ PRIOR FILING DATE: 1998-03-27
/ PRIOR APPLICATION NUMBER: 60/086478
/ PRIOR FILING DATE: 1998-05-22
/ PRIOR APPLICATION NUMBER: 60/087607
/ PRIOR FILING DATE: 1998-06-02
/ PRIOR APPLICATION NUMBER: 60/089801
/ PRIOR FILING DATE: 1998-06-18
/ PRIOR APPLICATION NUMBER: 60/090557
/ PRIOR FILING DATE: 1998-06-24
/ PRIOR APPLICATION NUMBER: 60/090689
/ PRIOR FILING DATE: 1998-06-25
/ Remaining Prior Application data removed - See File Wrapper or PALM.
/ NUMBER OF SEQ ID NOS: 116
/ SEQ ID NO 91
/ LENGTH: 2597
/ TYPE: DNA
/ ORGANISM: Homo Sapien
/ US-10-245-103-91

Query Match          13.9%; Score 793; DB 14; Length 2597;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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/ Sequence 91, Application US/10245107
/ Publication No. US20030068779A1
/ GENERAL INFORMATION:
/ APPLICANT: Baker, Kevin
/ APPLICANT: Baton, Dan
/ APPLICANT: Filvaroff, Ellen
/ APPLICANT: Goddard, Audrey
/ APPLICANT: Grimaldi, J. Christopher
/ APPLICANT: Gurney, Austin
/ APPLICANT: Smith, Victoria
/ APPLICANT: Stephan, Jean-Philippe
/ APPLICANT: Watanabe, Colin
/ APPLICANT: Wood, William
/ APPLICANT: Zhang, Zemin
/ APPLICANT: Fong, Sherman
/ TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
/ FILE OF INVENTION: ACIDS ENCODING THE SAME
/ FILE REFERENCE: P3630R1C171
/ CURRENT APPLICATION NUMBER: US/10/245,107
/ PRIOR FILING DATE: 2002-09-16
/ PRIOR APPLICATION NUMBER: 10/197942
/ PRIOR FILING DATE: 2002-07-18
/ PRIOR APPLICATION NUMBER: 60/059114
/ PRIOR FILING DATE: 1997-09-17
/ PRIOR APPLICATION NUMBER: 60/063046
/ PRIOR FILING DATE: 1997-10-24
/ PRIOR APPLICATION NUMBER: 60/065027
/ PRIOR FILING DATE: 1997-11-10
/ PRIOR APPLICATION NUMBER: 60/079689
/ PRIOR FILING DATE: 1998-03-27
/ PRIOR APPLICATION NUMBER: 60/086478
/ PRIOR FILING DATE: 1998-05-22
/ PRIOR APPLICATION NUMBER: 60/087607
/ PRIOR FILING DATE: 1998-06-02
/ PRIOR APPLICATION NUMBER: 60/089801

RESULT 3
US-10-245-107-91
/ Sequence 91, Application US/10245107
/ Publication No. US20030068779A1
/ GENERAL INFORMATION:
/ APPLICANT: Baker, Kevin
/ APPLICANT: Baton, Dan
/ APPLICANT: Filvaroff, Ellen
/ APPLICANT: Goddard, Audrey
/ APPLICANT: Grimaldi, J. Christopher
/ APPLICANT: Gurney, Austin
/ APPLICANT: Smith, Victoria
/ APPLICANT: Stephan, Jean-Philippe
/ APPLICANT: Watanabe, Colin
/ APPLICANT: Wood, William
/ APPLICANT: Zhang, Zemin
/ APPLICANT: Fong, Sherman
/ TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
/ FILE OF INVENTION: ACIDS ENCODING THE SAME
/ FILE REFERENCE: P3630R1C171
/ CURRENT APPLICATION NUMBER: US/10/245,107
/ PRIOR FILING DATE: 2002-09-16
/ PRIOR APPLICATION NUMBER: 10/197942
/ PRIOR FILING DATE: 2002-07-18
/ PRIOR APPLICATION NUMBER: 60/059114
/ PRIOR FILING DATE: 1997-09-17
/ PRIOR APPLICATION NUMBER: 60/063046
/ PRIOR FILING DATE: 1997-10-24
/ PRIOR APPLICATION NUMBER: 60/065027
/ PRIOR FILING DATE: 1997-11-10
/ PRIOR APPLICATION NUMBER: 60/079689
/ PRIOR FILING DATE: 1998-03-27
/ PRIOR APPLICATION NUMBER: 60/086478
/ PRIOR FILING DATE: 1998-05-22
/ PRIOR APPLICATION NUMBER: 60/087607
/ PRIOR FILING DATE: 1998-06-02
/ PRIOR APPLICATION NUMBER: 60/089801
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PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 116  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-245-143-91

Query Match 13.9%; Score 793; DB 14; Length 2597;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

579 CGAGTATTTTCCACCATCTCCAGCGGAACTGACCAAGAACTCTGAGGCGATGGCAT 638  
1 CGAGTATTTTCCACCATCTCCAGCGGAACTGACCAAGAACTCTGAGGCGATGGCAT 60  
639 GTTCGGTACGCTTCCATGATGAGTGTGCGCTCGATGATTAAGATCCCTTGGACAC 698  
61 GTTCGGTACGCTTCCATGATGAGTGTGCGCTCGATGATTAAGATCCCTTGGACAC 120  
699 GTTCACCATCATCCCTGATTTGATATCTACTATGTCTATGTTTAAAGATGGCACTT 758  
121 CTTCACCATCATCCCTGATTTGATATCTACTATGTCTATGTTTAAAGATGGCACTT 180  
759 TGTCTACTTTTGAACCTTCAACTGAGATGATGTCTCCACAGGCTCCACACCAAGGA 818  
181 TGTCTACTTTTGAACCTTCAACTGAGATGATGTCTCCACAGGCTCCACACCAAGGA 240  
819 GCAAGGTATATATCCAACTCTGAGGCTTTCAGAGGACACAGGCTTCACTCTA 878  
241 GCAAGGTATATATCCAACTCTGAGGCTTTCAGAGGACACAGGCTTCACTCTA 300  
879 TGTAGAGGTAGCCCATGCTGTGAGGCGAGTGGGCTGAGTACCCCTGTGCAAGCTGC 938  
301 TGTAGAGGTAGCCCATGCTGTGAGGCGAGTGGGCTGAGTACCCCTGTGCAAGCTGC 360  
939 CTACCTGTCCAAAGCGGCGGCGGTGCTTGGCAGAACCTTGGAGTCCATCCAGATGATGA 998  
361 CTACCTGTCCAAAGCGGCGGCGGTGCTTGGCAGAACCTTGGAGTCCATCCAGATGATGA 420  
999 CCGGCTCTCAGCGCTTCTCCAGAGGCGAAGGAAATGAATCCCTGATGATGATC 1058  
421 CCGGCTCTCAGCGCTTCTCCAGAGGCGAAGGAAATGAATCCCTGATGATGATC 480  
1059 GGGCCGTGTCATCTTCAATCTTAAGAGATTAATACCCGATTAAGAGCGGCTGCACTC 1118  
481 GGGCCGTGTCATCTTCAATCTTAAGAGATTAATACCCGATTAAGAGCGGCTGCACTC 540  
1119 TTGTTACCGGGGAGAGGAGACCTGGACCTGGCTCAGAGGAAAGGACATCCCTG 1178  
541 TTGTTACCGGGGAGAGGAGACCTGGACCTGGCTCAGAGGAAAGGACATCCCTG 600  
1179 CAGACATGCGCTCTTAACCATTAAGATTAATCTGTGTGCTGACATGAATGCTCCCT 1238  
601 CAGACATGCGCTCTTAACCATTAAGATTAATCTGTGTGCTGACATGAATGCTCCCT 660  
1239 GGAAGTGTCCGACATGTCGCGGAGATTCGCCCTTCAAGAGGACAGGAGACCGGATGAC 1298  
661 GGAAGTGTCCGACATGTCGCGGAGATTCGCCCTTCAAGAGGACAGGAGACCGGATGAC 720  
1299 GTCTGATCATGATATGTCTAAGAACCACTCTCTGAGCTTTGTGGGACCAAAAGTGG 1358  
721 GTCTGATCATGATATGTCTAAGAACCACTCTCTGAGCTTTGTGGGACCAAAAGTGG 780  
1359 CAAAGTGAAGAG 1371  
781 CAAAGTGAAGAG 793

## RESULT 4

US-10-245-143-91  
Sequence 91, Application US/10245143  
Publication No. US20030068760A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin  
APPLICANT: Baton, Dan  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Goddard, Audrey  
APPLICANT: Grimaldi, J. Christopher  
APPLICANT: Gurney, Austin  
APPLICANT: Smith, Victoria  
APPLICANT: Stephan, Jean-Philippe  
APPLICANT: Watanabe, Colin  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
APPLICANT: Fong, Sherman  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
FILE REFERENCE: P3630R1090  
CURRENT FILING DATE: 2002-09-16  
PRIOR APPLICATION NUMBER: 10/197942  
PRIOR FILING DATE: 2002-07-18  
PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
PRIOR FILING DATE: 1998-06-02  
PRIOR APPLICATION NUMBER: 60/089801  
PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 116  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-245-143-91

Query Match 13.9%; Score 793; DB 14; Length 2597;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

579 CGAGTATTTTCCACCATCTCCAGCGGAACTGACCAAGAACTCTGAGGCGATGGCAT 638  
1 CGAGTATTTTCCACCATCTCCAGCGGAACTGACCAAGAACTCTGAGGCGATGGCAT 60  
639 GTTCGGTACGCTTCCATGATGAGTGTGCGCTCGATGATTAAGATCCCTTGGACAC 698  
61 GTTCGGTACGCTTCCATGATGAGTGTGCGCTCGATGATTAAGATCCCTTGGACAC 120  
699 GTTCACCATCATCCCTGATTTGATATCTACTATGTCTATGTTTAAAGATGGCACTT 758  
121 CTTCACCATCATCCCTGATTTGATATCTACTATGTCTATGTTTAAAGATGGCACTT 180  
759 TGTCTACTTTTGAACCTTCAACTGAGATGATGTCTCCACAGGCTTCACTCTA 818  
181 TGTCTACTTTTGAACCTTCAACTGAGATGATGTCTCCACAGGCTTCACTCTA 240  
819 GCAAGGTATATATCCAACTCTGAGGCTTTCAGAGGACACAGGCTTCACTCTA 878

DB 241 GCAGGTATATACATCAAGCTGTGAGGCTTGTGCAAGAGACACAGCTTCACTCTTA 300  
QY 879 TGTAGAGGTGCCATTTGGCTGTGAGCGCAGTGGGGTGAATACCGCTGTGTCAGGCTGC 938  
DB 301 TGTAGAGGTGCCATTTGGCTGTGAGCGCAGTGGGGTGAATACCGCTGTGTCAGGCTGC 360  
QY 939 CTACCTGTCCAAAGCGGGGCGCTGTGTCAGGACCTTGGAGTCCATCCAGATGATGA 998  
DB 361 CTACCTGTCCAAAGCGGGGCGCTGTGTCAGGACCTTGGAGTCCATCCAGATGATGA 420  
QY 999 CCGTCTTCAACCGTCTTCTTCCAAAGGCGCAAGCGGAAATGAATCCCTGATGATC 1058  
DB 421 CCGTCTTCAACCGTCTTCTTCCAAAGGCGCAAGCGGAAATGAATCCCTGATGATC 480  
QY 1059 GGGCCGTGTGATTTGATCTGTGAGAGATAATATACCGCATTTAGAGGCGGCTGACATC 1118  
DB 481 GGGCCGTGTGATTTGATCTGTGAGAGATAATATACCGCATTTAGAGGCGGCTGACATC 540  
QY 1119 TTGTATCCGGGCGAGAGGCAACGCTGAGCCTGGCTGCTCAAGTGAAGACATCCCTG 1178  
DB 541 TTGTATCCGGGCGAGAGGCAACGCTGAGCCTGGCTGCTCAAGTGAAGACATCCCTG 600  
QY 1179 TGTATCCGGGCGAGAGGCAACGCTGAGCCTGGCTGCTCAAGTGAAGACATCCCTG 1238  
DB 601 CAGCAATGCGCTCTTAAACATTAAGCATTTCTGTGGCTGACATGAATGCTCCCT 660  
QY 1239 GGGAGTGTCCGATGCTGTGAGTGTGAAATCCCGCTTCAAGAGACAGGACCGCATGAC 1298  
DB 661 GGGAGTGTCCGATGCTGTGAGTGTGAAATCCCGCTTCAAGAGACAGGACCGCATGAC 720  
QY 1299 GTGTGATGCAATGATGTCTAACAAGACATCTCTGAGCCTTTGTGGGACCAAAAGTGG 1358  
DB 721 GTGTGATGCAATGATGTCTAACAAGACATCTCTGAGCCTTTGTGGGACCAAAAGTGG 780  
QY 1359 CAAGCTGAAGAG 1371  
DB 781 CAAGCTGAAGAG 793

RESULT 5  
US-10-245-771-91  
; Sequence 91, Application US/10245771  
; Publication No. US20030068781A1  
; GENERAL INFORMATION:  
; APPLICANT: Baker, Kevin  
; APPLICANT: Baton, Dan  
; APPLICANT: Filvaroff, Ellen  
; APPLICANT: Goddard, Audrey  
; APPLICANT: Grimaldi, J. Christopher  
; APPLICANT: Gurney, Austin  
; APPLICANT: Smith, Victoria  
; APPLICANT: Stephan, Jean-Philippe  
; APPLICANT: Wacande, Colin  
; APPLICANT: Zhang, Zemin  
; APPLICANT: Fong, Sherman  
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
; TITLE OF INVENTION: ACTS ENCODING THE SAME  
; FILE REFERENCE: P3630R1C98  
; CURRENT APPLICATION NUMBER: US/10/245, 771  
; CURRENT FILING DATE: 2002-09-16  
; PRIOR APPLICATION NUMBER: 10/197942  
; PRIOR FILING DATE: 2002-07-18  
; PRIOR APPLICATION NUMBER: 60/059114  
; PRIOR FILING DATE: 1997-09-17  
; PRIOR APPLICATION NUMBER: 60/063046  
; PRIOR FILING DATE: 1997-10-24  
; PRIOR APPLICATION NUMBER: 60/065027  
; PRIOR FILING DATE: 1997-11-10  
; PRIOR APPLICATION NUMBER: 60/079689  
; PRIOR FILING DATE: 1998-03-27  
; PRIOR APPLICATION NUMBER: 60/086478  
; PRIOR FILING DATE: 1998-05-22

;; PRIOR APPLICATION NUMBER: 60/087607  
;; PRIOR FILING DATE: 1998-06-02  
;; PRIOR APPLICATION NUMBER: 60/089801  
;; PRIOR FILING DATE: 1998-06-18  
;; PRIOR APPLICATION NUMBER: 60/090557  
;; PRIOR FILING DATE: 1998-06-24  
;; PRIOR APPLICATION NUMBER: 60/090689  
;; PRIOR FILING DATE: 1998-06-25  
;; Remaining Prior Application data removed - See File Wrapper or PAM.  
;; NUMBER OF SEQ ID NOS: 116  
;; SEQ ID NO 91  
;; LENGTH: 2597  
;; TYPE: DNA  
;; ORGANISM: Homo Sapien  
US-10-245-771-91  
Query Match 13.9%; Score 793; DB 14; Length 2597;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 579 CGAGTATTTTCCACATCTCCAGCCGGAATGACCAAGACTGAGGCGGATGAT 638  
DB 1 CGAGTATTTTCCACATCTCCAGCCGGAATGACCAAGACTGAGGCGGATGAT 60  
QY 639 GTTGGCGTACGCTTCCATGATGATGTTGTTGCTGATGATTAAGATCCCTTGGACAC 638  
DB 61 GTTGGCGTACGCTTCCATGATGATGTTGTTGCTGATGATTAAGATCCCTTGGACAC 120  
QY 699 CTTACCATGATCCCGTACCTTGTATATCTACATGCTATGTTTATAGAGTGGCACTT 758  
DB 121 CTTACCATGATCCCGTACCTTGTATATCTACATGCTATGTTTATAGAGTGGCACTT 180  
QY 759 TGTCTACTTTTGAACCTCCAACTGATGATGTTCTCCACAGGCTCCACCAAGGA 818  
DB 181 TGTCTACTTTTGAACCTCCAACTGATGATGTTCTCCACAGGCTCCACCAAGGA 240  
QY 819 GCAGGTATATACATCCAGCTGTGAGGCTTTGCAAGAGAGACACAGCCTTCACTCTTA 878  
DB 241 GCAGGTATATACATCCAGCTGTGAGGCTTTGCAAGAGAGACACAGCCTTCACTCTTA 300  
QY 879 TGTAGAGGTGCCATTTGGCTGTGAGCGCAGTGGGGTGAATACCGCTGTGTCAGGCTGC 938  
DB 301 TGTAGAGGTGCCATTTGGCTGTGAGCGCAGTGGGGTGAATACCGCTGTGTCAGGCTGC 360  
QY 939 CTACCTGTCCAAAGCGGGGCGCTGTGTCAGGACCTTGGAGTCCATCCAGATGATGA 998  
DB 361 CTACCTGTCCAAAGCGGGGCGCTGTGTCAGGACCTTGGAGTCCATCCAGATGATGA 420  
QY 999 CCGTCTTCAACCGTCTTCTTCCAAAGGCGCAAGCGGAAATGAATCCCTGATGATC 1058  
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QY 1179 CAGCAATGCGCTCTTAAACATTAAGCATTTCTGTGGCTGACATGAATGCTCCCT 1238  
DB 601 CAGCAATGCGCTCTTAAACATTAAGCATTTCTGTGGCTGACATGAATGCTCCCT 660  
QY 1239 GGGAGTGTCCGATGCTGTGAGTGTGAAATCCCGCTTCAAGAGACAGGACCGCATGAC 1298  
DB 661 GGGAGTGTCCGATGCTGTGAGTGTGAAATCCCGCTTCAAGAGACAGGACCGCATGAC 720  
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;; PRIOR APPLICATION NUMBER: 60/086478  
;; PRIOR FILING DATE: 1998-05-22  
;; PRIOR APPLICATION NUMBER: 60/087607  
;; PRIOR FILING DATE: 1998-06-02  
;; PRIOR APPLICATION NUMBER: 60/089801  
;; PRIOR FILING DATE: 1998-06-18  
;; PRIOR APPLICATION NUMBER: 60/090557  
;; PRIOR FILING DATE: 1998-06-24  
;; PRIOR APPLICATION NUMBER: 60/090689  
;; PRIOR FILING DATE: 1998-06-25  
;; Remaining Prior Application data removed - See File Wrapper or PAM.  
;; NUMBER OF SEQ ID NOS: 116  
;; SEQ ID NO 91  
;; LENGTH: 2597  
;; TYPE: DNA  
;; ORGANISM: Homo Sapien  
US-10-245-883-91

Query March 13.9%; Score 793; DB 14; Length 2597;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 579 CGAGTATTTTCCGACCATCTCCAGCCGGAATGACCAAGAACTGTAGGCGGATGGCAT 638  
DB 1 CGAGTATTTTCCGACCATCTCCAGCCGGAATGACCAAGAACTGTAGGCGGATGGCAT 60  
QY 639 GTTCGGCTAGGCTCTTCATGATAGTTCGGCTCGATGATTAATCCCTTCGGACAC 698  
DB 61 GTTCGGCTAGGCTCTTCATGATAGTTCGGCTCGATGATTAATCCCTTCGGACAC 120  
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DB 121 CTTCACCATCATCCCTGACTTGTATATCTATGTTTGTAGGATGGCACTT 180  
QY 759 TGTGTACTTTTGAACCTCCCACTGAGATGATGTCTCCACCGAGCTCCACCAAGGA 818  
DB 181 TGTGTACTTTTGAACCTCCCACTGAGATGATGTCTCCACCGAGCTCCACCAAGGA 240  
QY 819 GCAAGTATATATATCCAAAGCTCGTGAAGCTTTTGCAGAGAGACACAGCCCTCACTCTA 878  
DB 241 GCAAGTATATATATCCAAAGCTCGTGAAGCTTTTGCAGAGAGACACAGCCCTCACTCTA 300  
QY 879 TGTGAAGTGGCCATTGGCTGTGAGCCGATGGGGTGTGAATACCGCTGTGTGAGGCTGC 938  
DB 301 TGTGAAGTGGCCATTGGCTGTGAGCCGATGGGGTGTGAATACCGCTGTGTGAGGCTGC 360  
QY 939 CTACCTGTCCAAAGCGGGGCGCGTGTGACAGGACCCCTTGAGTCATCCAGATGATGA 998  
DB 361 CTACCTGTCCAAAGCGGGGCGCGTGTGACAGGACCCCTTGAGTCATCCAGATGATGA 420  
QY 999 CTGTCTTTTACCGCTCTTCTCCAGAGGCGCAAGCGGAATAATCCCTGATGATGC 1058  
DB 421 CTGTCTTTTACCGCTCTTCTCCAGAGGCGCAAGCGGAATAATCCCTGATGATGC 480  
QY 1059 GGCCCTGTGATCTTCACTTCTTGAAGCAGATTAATGACCGATTAAGAGGGGTGTGAGTC 1118  
DB 481 GGCCCTGTGATCTTCACTTCTTGAAGCAGATTAATGACCGATTAAGAGGGGTGTGAGTC 540  
QY 1119 TTGTATACGGGGCGAGGGGACGCTGACCTGGCTGTGCTCAAGGTGAAGACATCCCTTG 1178  
DB 541 TTGTATACGGGGCGAGGGGACGCTGACCTGGCTGTGCTCAAGGTGAAGACATCCCTTG 600  
QY 1179 CAGAGAGGCGCTTATACATTAAGCATTAATCTGTGGCTGAGATCAATGAACTCCCT 1238  
DB 601 CAGAGAGGCGCTTATACATTAAGCATTAATCTGTGGCTGAGATCAATGAACTCCCT 660  
QY 1239 GGAAGTGTCCGACATGTGTGGGTGAATTCGGCTTTCAGGAGGACAGGACCGCATGAC 1298  
DB 661 GGAAGTGTCCGACATGTGTGGGTGAATTCGGCTTTCAGGAGGACAGGACCGCATGAC 720  
QY 1299 GTCTGTATGGCAATATGTCAAGAACCACTCTGTGGCTTTGTGGGCGCAAAAGTGG 1358

DB 721 GTCTGTATGGCAATATGTCAAGAACCACTCTGTGGCTTTGTGGGCGCAAAAGTGG 780  
QY 1359 CAAGTGAAGAG 1371  
DB 781 CAAGTGAAGAG 793

RESULT 8  
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;; Sequence 91, Application US/10237535  
;; Publication No. US20030073188A1  
;; GENERAL INFORMATION:  
;; APPLICANT: Baker, Kevin  
;; APPLICANT: Bacon, Dan  
;; APPLICANT: Filvaroff, Ellen  
;; APPLICANT: Goddard, Audrey  
;; APPLICANT: Grimaldi, S. Christopher  
;; APPLICANT: Gutney, Austin  
;; APPLICANT: Smith, Victoria  
;; APPLICANT: Stephan, Jean-Philippe  
;; APPLICANT: Matanabe, Colin  
;; APPLICANT: Wood, William  
;; APPLICANT: Zhang, Zemin  
;; APPLICANT: Pong, Sherman  
;; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
;; FILE REFERENCE: P3630R1C3  
;; CURRENT FILING DATE: 2002-09-06  
;; PRIOR FILING DATE: 2002-07-18  
;; PRIOR APPLICATION NUMBER: 60/059114  
;; PRIOR FILING DATE: 1997-09-17  
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PRIOR FILING DATE: 2002-04-09

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QY CGAGTATTTTCCGACCATCTCCAGCCGGAATGACCAAGAACTCTGAGGCGATGGCAT 638  
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QY 639 GTTCGCTAGCTCTTCATGATGATGCTGCGCTCGATGATTAAGATCCCTTCGGAAC 698



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 PRIOR FILING DATE: 2002-02-20  
 PRIOR APPLICATION NUMBER: 10/119480  
 PRIOR FILING DATE: 2002-04-09

Query Match 13.9%; Score 793; DB 14; Length 2597;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

579 CGAGTATTTTCCACATCTCCAGCCGAAATGACCAAGACTGTGGGGGATGGACT 638  
 1 CGAGTATTTTCCACATCTCCAGCCGAAATGACCAAGACTGTGGGGGATGGACT 60  
 639 GTTCGGTACGTCTTCATGATGATGTCGTGCTCGATGATTAAGATCCCTGGACAC 698  
 61 GTTCGGTACGTCTTCATGATGATGTCGTGCTCGATGATTAAGATCCCTGGACAC 120  
 699 GTTCACCATCATCCCTGATCTTTGATATCTATATGTTTATGATGAGGGAACCT 758  
 121 GTTCACCATCATCCCTGATCTTTGATATCTATATGTTTATGATGAGGGAACCT 180  
 759 TGTCTACTTTTGAACCTCCAACTGAGATGATGTCCTCCACCAAGGCTCCACCAAGA 818  
 181 TGTCTACTTTTGAACCTCCAACTGAGATGATGTCCTCCACCAAGGCTCCACCAAGA 240  
 819 GAGGTGTATACATCAAGCTGATGAGGCTTTGCAAGAGGACACAGCCTTAACTCCCA 878  
 241 GAGGTGTATACATCAAGCTGATGAGGCTTTGCAAGAGGACACAGCCTTAACTCCCA 300  
 879 TGTAGAGGTGCCATTTGGCTGTGAGGCAAGTGGGTGAGTACCGGCTGCTGAGGCTGC 938  
 301 TGTAGAGGTGCCATTTGGCTGTGAGGCAAGTGGGTGAGTACCGGCTGCTGAGGCTGC 360  
 939 CTACTGTCCAAAGCGGGGGCGGTGTTGGCAAGACCTTTGAGTCAATCCATGATATGA 998  
 361 CTACTGTCCAAAGCGGGGGCGGTGTTGGCAAGACCTTTGAGTCAATCCATGATATGA 420  
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Db      481 GGGCCCTGACATCTTCACTTGAAGACATTAATGAACCGCATTAAGAGCGGCTGCAGTC 540
Qy      1119 TTGTTACCGGGGCGAGGCGACGCTGACCTGCTGCTGCTCAAGGTGAAGACATCCCTG 1178
Db      541 TTGTTACCGGGGCGAGGCGACGCTGACCTGCTGCTGCTCAAGGTGAAGACATCCCTG 600
Qy      1179 CAGCAGTCCGCTCTTAACCATTTGACGATATCTTGTGGCTTGGACATGAATGCTCCCT 1238
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Qy      1239 GGGAGTGTCCGACATGATGCTGCAATCCGCTTTCACGAGGACAGGAGCCGATGAC 1298
Db      661 GGGAGTGTCCGACATGATGCTGCAATCCGCTTTCACGAGGACAGGAGCCGATGAC 720
Qy      1299 GTCTGTCATCGCATATGCTCTACAGAACCACTCTCTGCTTTGTGGGACCAAAAGTGG 1358
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; Publication No. US20030073190A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin
; APPLICANT: Eaton, Dan
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Goddard, Audrey
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin
; APPLICANT: Smith, Victoria
; APPLICANT: Stephan, Jean-Philippe
; APPLICANT: Watande, Collin
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; APPLICANT: Fong, Sherman
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3630R1C15
; CURRENT APPLICATION NUMBER: US/10/238,283
; PRIOR FILING DATE: 2002-09-09
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; PRIOR APPLICATION NUMBER: 60/059114
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; PRIOR APPLICATION NUMBER: 60/090557
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; PRIOR APPLICATION NUMBER: 60/090669
; PRIOR FILING DATE: 1998-06-25
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 116
; SEQ ID NO 91
; LENGTH: 2597
; TYPE: DNA
; ORGANISM: Homo Sapien
US-10-238-283-91

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Query Match      13.9%; Score 793; DB 14; Length 2597;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      579 CGAGTATTTTCCCAACCATCTCCAGCCGGAACCTGACCAAGAACTCTGAAGCGGATGACAT 638
Db      1 CGAGTATTTTCCCAACCATCTCCAGCCGGAACCTGACCAAGAACTCTGAAGCGGATGACAT 60
Qy      639 GTTCGGCTACGCTTTCATGATGAGTTCGTGGCTTCGATTAAGATCCCTTGGACAC 698
Db      61 GTTCGGCTACGCTTTCATGATGAGTTCGTGGCTTCGATTAAGATCCCTTGGACAC 120
Qy      699 CTTACACCATCAATCCCTGACCTTTGATATCTACTATGCTATGCTTTTGAAGTGGCACTT 758
Db      121 CTTACACCATCAATCCCTGACCTTTGATATCTACTATGCTATGCTTTTGAAGTGGCACTT 180
Qy      759 TGTCTACTTTTGAACCTTCGAACCTGAGATGCTGTCTCCACAGGCTCCACACCAAGGA 818
Db      181 TGTCTACTTTTGAACCTTCGAACCTGAGATGCTGTCTCCACAGGCTCCACACCAAGGA 240
Qy      819 GCAAGGTATATACATCCAGCTGTGAGGCTTTCGAAGAGACACAGCTTCACTCTTA 878
Db      241 GCAAGGTATATACATCCAGCTGTGAGGCTTTCGAAGAGACACAGCTTCACTCTTA 300
Qy      879 TGTAGAGTGCCCATTTGCTGTGAGGCGAGTGGGTGAGTACCGCTGCTGCAAGCTGC 938
Db      301 TGTAGAGTGCCCATTTGCTGTGAGGCGAGTGGGTGAGTACCGCTGCTGCAAGCTGC 360
Qy      939 CTACCTGTCCAAAGCGGGGCGGCTGTTGGCAGAGACCTTGGAGTCCATCCAGATGATGA 998
Db      361 CTACCTGTCCAAAGCGGGGCGGCTGTTGGCAGAGACCTTGGAGTCCATCCAGATGATGA 420
Qy      999 CTGCTCTTCAACCGCTTCTTCGAAGGCGCAGAAAGCGGAAATGAATCCCTGATGAGTC 1058
Db      421 CTGCTCTTCAACCGCTTCTTCGAAGGCGCAGAAAGCGGAAATGAATCCCTGATGAGTC 480
Qy      1059 GGGCTGTGATTTTATCTTGAAGGATTAATGACCGCATTAAGAGACGGCTGAGTC 1118
Db      481 GGGCTGTGATTTTATCTTGAAGGATTAATGACCGCATTAAGAGACGGCTGAGTC 540
Qy      1119 TTGTACCGGGGCGAGGCGACGCTGACCTGCTGCTCAAGGTGAAGACATCCCTG 1178
Db      541 TTGTACCGGGGCGAGGCGACGCTGACCTGCTGCTCAAGGTGAAGACATCCCTG 600
Qy      1179 CAGCAGTCCGCTCTTAAACCATTTGACGATATCTTGTGGCTTGGACATGAATGCTCCCT 1238
Db      601 CAGCAGTCCGCTCTTAAACCATTTGACGATATCTTGTGGCTTGGACATGAATGCTCCCT 660
Qy      1239 GGGAGTGTCCGACATGATGCTGCAATCCGCTTTCACGAGGACAGGAGCCGATGAC 1298
Db      661 GGGAGTGTCCGACATGATGCTGCAATCCGCTTTCACGAGGACAGGAGCCGATGAC 720
Qy      1299 GTCTGTCATCGCATATGCTCTACAGAACCACTCTCTGCTTTGTGGGACCAAAAGTGG 1358
Db      721 GTCTGTCATCGCATATGCTCTACAGAACCACTCTCTGCTTTGTGGGACCAAAAGTGG 780
Qy      1359 CAAGCTGAAGAAG 1371
Db      781 CAAGCTGAAGAAG 793

RESULT 11
US-10-238-370-91
; Sequence 91, Application US/10238370
; Publication No. US20030073191A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin
; APPLICANT: Eaton, Dan
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Goddard, Audrey
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin
US-10-238-370-91

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APPLICANT: Smith,Victoria
APPLICANT: Stephan,Jean-Philippe
APPLICANT: Matanbe,Colin
APPLICANT: Wood,William
APPLICANT: Zhang,Zemin
APPLICANT: Fong,Sherman
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
FILE REFERENCE: P3630R1C10
CURRENT FILING DATE: 2002-09-09
PRIOR APPLICATION NUMBER: US/10/238,370
PRIOR FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/059114
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/063046
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/065027
PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: 60/079689
PRIOR FILING DATE: 1998-03-27
PRIOR APPLICATION NUMBER: 60/086478
PRIOR FILING DATE: 1998-05-22
PRIOR APPLICATION NUMBER: 60/087607
PRIOR FILING DATE: 1998-06-02
PRIOR APPLICATION NUMBER: 60/089801
PRIOR FILING DATE: 1998-06-18
PRIOR APPLICATION NUMBER: 60/090557
PRIOR FILING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: 60/090689
PRIOR FILING DATE: 1998-06-25
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 116
SEQ ID NO 91
LENGTH: 2597
TYPE: DNA
ORGANISM: Homo Sapien
US-10-238-370-91

Query Match      13.9% Score 793; DB 14; Length 2597;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 579 CGAGTATTTCCACCATCTCCAGCCGGAACCTGACCAAGAACTCTGAGCGGATGGCAT 638
DB 1 CGAGTATTTCCACCATCTCCAGCCGGAACCTGACCAAGAACTCTGAGCGGATGGCAT 60
QY 639 GTTCCGCTACGCTTCCATGATGATTTGGCCCTCCGATGATTAAGATCCCTTGGGACAC 698
DB 61 GTTCCGCTACGCTTCCATGATGATTTGGCCCTCCGATGATTAAGATCCCTTGGGACAC 120
QY 699 CTTCAACCATCATCCCTGACTTGTATATCTATGTCATAGTGTGTTTGTAGCACTGGCACTT 758
DB 121 CTTCAACCATCATCCCTGACTTGTATATCTATGTCATAGTGTGTTTGTAGCACTGGCACTT 180
QY 759 TGTCTACTTTTGGACCTTCCAACTGATGATGTCCTGACCAAGGCTCCACCAAGGGA 818
DB 181 TGTCTACTTTTGGACCTTCCAACTGATGATGTCCTGACCAAGGCTCCACCAAGGGA 240
QY 819 GCAGGTGTATACATCCAGCTGTAGAGGTTTGTCAAGAGGACACAGGCTTCAACTCTCTA 878
DB 241 GCAGGTGTATACATCCAGCTGTAGAGGTTTGTCAAGAGGACACAGGCTTCAACTCTCTA 300
QY 879 TGTAGAGGTGCCCATTTGGCTGTGAGGAGCAGTGGGGTGTAGTCCGGCTGTGGCGGCTGC 938
DB 301 TGTAGAGGTGCCCATTTGGCTGTGAGGAGCAGTGGGGTGTAGTCCGGCTGTGGCGGCTGC 360
QY 939 CTACCTGTCCAAAGCGGGGCGTGTGTGGCAGAGCCCTTGGAGTCCATCCAGATGATGA 998
DB 361 CTACCTGTCCAAAGCGGGGCGTGTGTGGCAGAGCCCTTGGAGTCCATCCAGATGATGA 420
QY 999 CCTGCTCTTACCGCTTCTTCCAAAGGCGCAAGAGGGAATGAAATCCCTGGATGATGC 1058

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DB 421 CTTGCTCTTACCGCTTCTTCCAAAGGCGCAAGAGGGAATGAAATCCCTGGATGATGC 480
QY 1059 GGGCCCTGTGATCTTCACTTTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCAGTC 1118
DB 481 GGGCCCTGTGATCTTCACTTTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCAGTC 540
QY 1119 TTGTTACCGGGGCGAGGGCAGCTGGACCTGGCTGGCTCAAGGTGAAGGACATCCCTG 1178
DB 541 TTGTTACCGGGGCGAGGGCAGCTGGACCTGGCTGGCTCAAGGTGAAGGACATCCCTG 600
QY 1179 CAGCAGTGCCTCTTAACCATTTGACGATTAATCTTGTGGCTGTGACATGAATGCTCCCT 1238
DB 601 CAGCAGTGCCTCTTAACCATTTGACGATTAATCTTGTGGCTGTGACATGAATGCTCCCT 660
QY 1239 GGGAGTGTCCGACATGTCGTCGATTAATCCCGCTCTTACCGAGAGCAGGGACCGCATGAC 1298
DB 661 GGGAGTGTCCGACATGTCGTCGATTAATCCCGCTCTTACCGAGAGCAGGGACCGCATGAC 720
QY 1299 GTCTGTCAATCGCATATGTCATCAAGAACCACTCTGTGCTTGTGGGACCAAAAGTGG 1358
DB 721 GTCTGTCAATCGCATATGTCATCAAGAACCACTCTGTGCTTGTGGGACCAAAAGTGG 780
QY 1359 CAAGCTGAAGAG 1371
DB 781 CAAGCTGAAGAG 793

RESULT 12
US-10-245-055-91
Sequence 91, Application US/10245055
Publication No. US20030073192A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin
APPLICANT: Eaton, Dan
APPLICANT: Filvaroff, Ellen
APPLICANT: Goddard, Audrey
APPLICANT: Grimaldi, U. Christopher
APPLICANT: Guirney, Austin
APPLICANT: Smith, Victoria
APPLICANT: Stephan, Jean-Philippe
APPLICANT: Matanbe, Colin
APPLICANT: Wood, William
APPLICANT: Zhang, Zemin
APPLICANT: Fong, Sherman
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
FILE REFERENCE: P3630R1C08
CURRENT APPLICATION NUMBER: US/10/245,055
CURRENT FILING DATE: 2002-09-16
PRIOR APPLICATION NUMBER: 10/197942
PRIOR FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/059114
PRIOR FILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/063046
PRIOR FILING DATE: 1997-10-24
PRIOR APPLICATION NUMBER: 60/065027
PRIOR FILING DATE: 1997-11-10
PRIOR APPLICATION NUMBER: 60/079689
PRIOR FILING DATE: 1998-03-27
PRIOR APPLICATION NUMBER: 60/086478
PRIOR FILING DATE: 1998-05-22
PRIOR APPLICATION NUMBER: 60/087607
PRIOR FILING DATE: 1998-06-02
PRIOR APPLICATION NUMBER: 60/089801
PRIOR FILING DATE: 1998-06-18
PRIOR APPLICATION NUMBER: 60/090557
PRIOR FILING DATE: 1998-06-24
PRIOR APPLICATION NUMBER: 60/090689
PRIOR FILING DATE: 1998-06-25
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 116
SEQ ID NO 91
LENGTH: 2597

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QY 999 CTTGCTTTGACCGCTCTTCTTCAGAGGCGGAGGCGGAAATGAAATCCCTGATGAGTC 1058
Db 421 CTTGCTTTGACCGCTCTTCTTCAGAGGCGGAGGCGGAAATGAAATCCCTGATGAGTC 480
QY 1059 GGCCTGTGCATCTTCACTTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCAGTC 1118
Db 481 GGCCTGTGCATCTTCACTTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCAGTC 540
QY 1119 TTGTTACCGGCGGAGGCGACGCTGCAGCTGCGCTGCTCAAGTGAAGACATCCCTCG 1178
Db 541 TTGTTACCGGCGGAGGCGACGCTGCAGCTGCGCTGCTCAAGTGAAGACATCCCTCG 600
QY 1179 CAGCAGTGCCTCTTAACCATTAATGACATTAATCTGAGCTGAGCATGATGCTCCCT 1238
Db 601 CAGCAGTGCCTCTTAACCATTAATGACATTAATCTGAGCTGAGCATGATGCTCCCT 660
QY 1239 GGGAGTGTCCGACATGTGTGCGTGAATTCCTGCTTCAAGAGACAGGAGCCGCTGAC 1298
Db 661 GGGAGTGTCCGACATGTGTGCGTGAATTCCTGCTTCAAGAGACAGGAGCCGCTGAC 720
QY 1299 GTCTGTATGCGCATATGCTTCAAGAACCACTGCTGAGCTTTGAGGACCAAAAGTGG 1358
Db 721 GTCTGTATGCGCATATGCTTCAAGAACCACTGCTGAGCTTTGAGGACCAAAAGTGG 780
QY 1359 CAACTGTAAGAG 1371
Db 781 CAACTGTAAGAG 793

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RESULT 14
US-10-245-730-91
; Sequence 91, Application US/10245730
; Publication No. US20030073194A1
; GENERAL INFORMATION:
; APPLICANT: Baker Kevin
; APPLICANT: Aaron Dan
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Goddard, Audrey
; APPLICANT: Grimaldi, J. Christopher
; APPLICANT: Gurney, Austin
; APPLICANT: Smith, Victoria
; APPLICANT: Stephan, Jean-Philippe
; APPLICANT: Warabe, Colin
; APPLICANT: Wood, William
; APPLICANT: Zhang, Zemin
; APPLICANT: Fong, Sherman
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3630R1C85
; CURRENT FILING DATE: 2002-09-16
; PRIOR APPLICATION NUMBER: US/10/245, 730
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/059114
; PRIOR FILING DATE: 1997-09-17
; PRIOR APPLICATION NUMBER: 60/063046
; PRIOR FILING DATE: 1997-10-24
; PRIOR APPLICATION NUMBER: 60/065027
; PRIOR FILING DATE: 1997-11-10
; PRIOR APPLICATION NUMBER: 60/079689
; PRIOR FILING DATE: 1998-03-27
; PRIOR APPLICATION NUMBER: 60/086478
; PRIOR FILING DATE: 1998-05-22
; PRIOR APPLICATION NUMBER: 60/087607
; PRIOR FILING DATE: 1998-06-02
; PRIOR APPLICATION NUMBER: 60/089801
; PRIOR FILING DATE: 1998-06-18
; PRIOR APPLICATION NUMBER: 60/090557
; PRIOR FILING DATE: 1998-06-24
; PRIOR APPLICATION NUMBER: 60/090689
; PRIOR FILING DATE: 1998-06-25
; Remaining Prior Application data removed - See File Wrapper or PALM.

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; NUMBER OF SEQ ID NOS: 116
; SEQ ID NO 91
; LENGTH: 2597
; TYPE: DNA
; ORGANISM: Homo Sapien
US-10-245-730-91

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Query Match 13.9%; Score 793; DB 14; Length 2597;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 793; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 579 CGAGTATTTTCCCAACATCTTCCACCGGAAACCTGACCAAGAACTCTGAGCGGATGTCAT 638
Db 1 CGAGTATTTTCCCAACATCTTCCACCGGAAACCTGACCAAGAACTCTGAGCGGATGTCAT 60
QY 639 GTTCCGATGCTTCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 698
Db 61 GTTCCGATGCTTCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 120
QY 699 CTTCACCATCATCCCTGACTTGAATATCTACTATGCTATGCTTGAAGTGGCACTT 758
Db 121 CTTCACCATCATCCCTGACTTGAATATCTACTATGCTATGCTTGAAGTGGCACTT 180
QY 759 TGTCTACTTTTGAACCTCCCACTGAGATGATGATGATGATGATGATGATGATGATGATGAT 818
Db 181 TGTCTACTTTTGAACCTCCCACTGAGATGATGATGATGATGATGATGATGATGATGATGAT 240
QY 819 GCAGGTGATATCATCAAGCTGTGAGGCTTTGCAAGAGACACAGCTTCAACTCTTA 878
Db 241 GCAGGTGATATCATCAAGCTGTGAGGCTTTGCAAGAGACACAGCTTCAACTCTTA 300
QY 879 TGTAGAGGTGCCATTGCTGTGAGCGCAGTGGGCTGAGTACCGCTGCTGACGCTGC 938
Db 301 TGTAGAGGTGCCATTGCTGTGAGCGCAGTGGGCTGAGTACCGCTGCTGACGCTGC 360
QY 939 CTACTGTCCAAAGCGGGGCGCTGTGCGAGACCTTGGAGTCCATCCAGTATGA 998
Db 361 CTACTGTCCAAAGCGGGGCGCTGTGCGAGACCTTGGAGTCCATCCAGTATGA 420
QY 999 CCGTCTCTTACCGCTCTTCCAAAGGCGCAAGCGGAAATGAAATCCCTGATGAGTC 1058
Db 421 CCGTCTCTTACCGCTCTTCCAAAGGCGCAAGCGGAAATGAAATCCCTGATGAGTC 480
QY 1059 GGCCTGTGCATCTTCACTTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCAGTC 1118
Db 481 GGCCTGTGCATCTTCACTTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCAGTC 540
QY 1119 TTGTTACCGGCGGAGGCGACGCTGACCTGAGCTGCAAGGTAAGAGACATCCCTG 1178
Db 541 TTGTTACCGGCGGAGGCGACGCTGAGCTGAGCTGCAAGGTAAGAGACATCCCTG 600
QY 1179 CAGCAGTGCCTCTTAACCATTAATGACATTAATCTGAGCTGAGCATGATGCTCCCT 1238
Db 601 CAGCAGTGCCTCTTAACCATTAATGACATTAATCTGAGCTGAGCATGATGCTCCCT 660
QY 1239 GGGAGTGTCCGACATGTGTGCGTGAATTCCTGCTTCAAGAGACAGGAGCCGCTGAC 1298
Db 661 GGGAGTGTCCGACATGTGTGCGTGAATTCCTGCTTCAAGAGACAGGAGCCGCTGAC 720
QY 1299 GTCTGTATGCGCATATGCTTCAAGAACCACTGCTGAGCTTTGAGGACCAAAAGTGG 1358
Db 721 GTCTGTATGCGCATATGCTTCAAGAACCACTGCTGAGCTTTGAGGACCAAAAGTGG 780
QY 1359 CAACTGTAAGAG 1371
Db 781 CAACTGTAAGAG 793

```

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RESULT 15
US-10-245-739-91
; Sequence 91, Application US/10245739
; Publication No. US20030073195A1
; GENERAL INFORMATION:

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GenCore version 5.1.6  
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: February 20, 2004, 02:24:55 : Search time 8736 Seconds  
(without alignments)  
19453.488 Million cell updates/sec

Title: US-09-964-956-12  
Perfect score: 5691  
Sequence: 1 atgaagaccatgcctcgaa.....gcttagacagctgaataaa 5691

Scoring table: OLIGO\_NUC  
Gapop 60.0, Gapext 60.0

Searched: 27513289 seqs, 14931090276 residues

Word size: 0

Total number of hits satisfying chosen parameters: 55026578

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Listing first 1000 summaries

Database:

EST:  
1: em\_estdb:\*  
2: em\_estdb:\*  
3: em\_estdb:\*  
4: em\_estdb:\*  
5: em\_estdb:\*  
6: em\_estdb:\*  
7: em\_estdb:\*  
8: em\_estdb:\*  
9: em\_estdb:\*  
10: em\_estdb:\*  
11: em\_estdb:\*  
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25: em\_estdb:\*  
26: em\_estdb:\*  
27: em\_estdb:\*  
28: em\_estdb:\*  
29: em\_estdb:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	637	11.2	838	14	CD653539
2	613	10.8	838	13	CD653539
3	457	8.0	483	9	AL707761
4	422	7.4	473	13	EX645676

5	328	5.8	564	10	BF953019	BF953019 QV3-NN019
6	313	5.5	512	10	BF952116	BF952116 QV1-NN022
7	232	4.1	232	9	AA077700	AA077700 7B44B08 C
8	215	3.8	233	9	AA077556	AA077556 7B19F10 C
9	206	3.6	251	9	AA077578	AA077578 7B19H10 C
10	198	3.5	493	10	BF953008	BF953008 QV3-NN019
11	176	3.1	924	10	BF312056	BF312056 601897930
12	156	2.7	242	10	BF750764	BF750764 7B18G11 C
13	152	2.7	789	12	BG216679	BG216679 RST36373
14	123	2.2	328	14	T07763	T07763 EST05653 Fe
15	118	2.1	302	9	AA076688	AA076688 7B03G05 C
16	115	2.0	317	10	BF750764	BF750764 RCO-BW041
17	104	1.8	578	29	HS4408793	HS4408793 Homo sapi
18	85	1.5	225	28	AQ356023	AQ356023 CITR1-EL1
19	84	1.5	567	12	BM105323	BM105323 508753 MA
20	84	1.5	690	12	BG178805	BG178805 602696967
21	79	1.4	246	9	AA076891	AA076891 7B04F01 C
22	73	1.3	273	9	AA076904	AA076904 7B04H08 C
23	72	1.3	439	28	AQ004244	AQ004244 CIT-HP-2
24	71	1.2	285	28	AQ423495	AQ423495 CITR1-EL1
25	62	1.1	420	28	AQ032236	AQ032236 HS-5200_A
26	58	1.0	390	28	AQ522248	AQ522248 UI-M-FW0-
27	54	0.9	745	14	CA316867	CA316867 UI-M-FW0-
28	53	0.9	3361	11	AK051614	AK051614 Mus muscu
29	49	0.9	712	12	BG424126	BG424126 602448004
30	48	0.9	715	9	AU131481	AU131481 AU131481
31	45	0.9	862	13	BQ962177	BQ962177 AGENCOURT
32	49	0.9	5520	29	BF759752	BF759752 QV3-CT063
33	49	0.9	202	10	BF952937	BF952937 QV3-NN019
34	47	0.8	455	10	BF952937	BF952937 K-EST0180
35	47	0.8	498	14	CB130771	CB130771 K-EST0180
36	47	0.8	762	9	AL134739	AL134739 DKFZP547C
37	47	0.8	865	14	CD243613	CD243613 AGENCOURT
38	47	0.8	1027	12	BM544169	BM544169 AGENCOURT
39	47	0.8	5391	29	AY420220	AY420220 Pan trogl
40	47	0.8	5691	29	AY420219	AY420219 Homo sapi
41	47	0.8	638	12	BG086250	BG086250 H3123F01-
42	44	0.8	720	12	BG820285	BG820285 602780390
43	43	0.7	598	13	BK672058	BK672058 BX672058
44	41	0.7	657	13	BK670344	BK670344 BX670344
45	41	0.7	456	12	BM484361	BM484361 538194 MA
46	40	0.7	439	10	BF801888	BF801888 CMO-C1009
47	39	0.7	498	14	CB156432	CB156432 K-EST0215
48	39	0.7	536	10	BE296123	BE296123 601177137
49	39	0.7	586	10	BE298119	BE298119 601118264
50	39	0.7	628	14	CA686163	CA686163 1178508.Y
51	39	0.7	635	13	BQ447116	BQ447116 UI-H-ED1-
52	39	0.7	653	10	BE294546	BE294546 601173485
53	39	0.7	688	12	BG212881	BG212881 602807556
54	39	0.7	702	12	BG825770	BG825770 602747116
55	39	0.7	710	10	BE295416	BE295416 601175942
56	39	0.7	715	10	BE296475	BE296475 601174742
57	39	0.7	732	10	BE296288	BE296288 601186342
58	39	0.7	838	12	BI824913	BI824913 603032430
59	39	0.7	882	13	BU149880	BU149880 AGENCOURT
60	39	0.7	904	13	BQ720660	BQ720660 AGENCOURT
61	39	0.7	918	13	BQ723197	BQ723197 AGENCOURT
62	39	0.7	951	10	BF309302	BF309302 601887769
63	39	0.7	994	10	BE736103	BE736103 601305855
64	39	0.7	1059	12	BM547417	BM547417 AGENCOURT
65	39	0.7	1201	9	AL529477	AL529477 AL529477
66	39	0.7	1445	10	BF346699	BF346699 601570457
67	39	0.7	1455	10	AY20667	AY20667 Pan trogl
68	39	0.7	1455	10	AY20667	AY20667 Pan trogl
69	39	0.7	523	13	CA4359	CA4359 CA4359 oste
70	39	0.7	526	10	BF189217	BF189217 234589 MA
71	39	0.7	587	14	CA752450	CA752450 UI-M-FW0-
72	39	0.7	612	14	CD351086	CD351086 UI-M-FW0-
73	39	0.7	677	14	CA752378	CA752378 UI-M-FW0-
74	39	0.7	724	14	CD351785	CD351785 UI-M-FW0-
75	39	0.7	734	14	CD351785	CD351785 UI-M-FW0-
76	39	0.7	734	14	CD351785	CD351785 UI-M-FW0-
77	39	0.7	863	13	BU457242	BU457242 603215856

78	38	0.7	5564	29	AY420221	Mus muscu
79	37	0.7	627	10	BA452530	
80	37	0.7	854	10	BU204192	
81	37	0.7	957	10	BF308474	60187611
82	37	0.7	976	11	BU250116	603401842
83	37	0.7	1428	11	AK051217	Mus muscu
84	36	0.6	830	29	CC906011	1026f23ba
85	35	0.6	412	12	BU694413	NISC 1v01
86	35	0.6	594	14	CA361702	604171588
87	35	0.6	623	13	BU347263	604170593
88	35	0.6	678	13	BU269854	603815462
89	35	0.6	678	13	BU269854	603815462
90	35	0.6	678	13	BU269854	603815462
91	35	0.6	684	13	BU269854	603815462
92	35	0.6	684	13	BU269854	603815462
93	35	0.6	715	13	BU269854	603815462
94	35	0.6	721	13	BU269854	603815462
95	35	0.6	745	13	BU269854	603815462
96	35	0.6	752	13	BU269854	603815462
97	35	0.6	759	13	BU269854	603815462
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162	32	0.6	558	12	BM46837	
163	31	0.5	759	14	CA24071	
164	30	0.5	245	29	CE607027	
165	30	0.5	446	13	BY208069	
166	30	0.5	566	13	BU438837	
167	30	0.5	630	13	BU438837	
168	30	0.5	723	13	BK320195	
169	30	0.5	878	29	CNS0288E	
170	30	0.5	932	13	BU212882	
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173	29	0.5	239	13	BQ663192	
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183	29	0.5	485	28	AO522271	
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185	29	0.5	491	14	BI9130	
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227	0.5	933	13	B0683335	B0683335	300	0.4	711	14	CB519051	CB519051
228	0.5	934	12	B0008857	B0008857	301	0.4	716	14	CB249549	CB249549
229	0.5	937	12	B0150733	B0150733	302	0.4	725	12	B0950962	B0950962
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232	0.5	972	10	BF304376	BF304376	305	0.4	995	25	CNS03187	CNS03187
233	0.5	1102	10	BF310972	BF310972	306	0.4	1142	28	CC321172	CC321172
234	0.5	1201	9	AL544309	AL544309	307	0.4	269	14	CF176406	CF176406
235	0.5	1562	9	BR402709	BR402709	308	0.4	440	14	CB544386	CB544386
236	0.5	658	28	AZ710589	AZ710589	309	0.4	591	14	CB554615	CB554615
237	0.5	667	28	AZ760778	AZ760778	310	0.4	1006	29	CNS03XRL	CNS03XRL
238	0.5	707	13	B0682954	B0682954	311	0.4	157	28	AQ006035	AQ006035
239	0.5	1037	13	B0117252	B0117252	312	0.4	159	10	AM606478	AM606478
240	0.5	1201	9	AL563454	AL563454	313	0.4	213	10	BE839128	BE839128
241	0.5	431	28	BH301849	BH301849	314	0.4	214	12	BT028112	BT028112
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243	0.5	483	10	BR442398	BR442398	316	0.4	222	14	CB367772	CB367772
244	0.5	555	14	CA327930	CA327930	317	0.4	256	14	CB520918	CB520918
245	0.5	568	14	CB519832	CB519832	318	0.4	264	14	CF177775	CF177775
246	0.5	598	14	CB294685	CB294685	319	0.4	277	10	BB330669	BB330669
247	0.5	629	10	CB246297	CB246297	320	0.4	320	9	AV591337	AV591337
248	0.5	649	29	AG173807	AG173807	321	0.4	336	10	AT847593	AT847593
249	0.5	649	29	AG173807	AG173807	322	0.4	336	10	BF404876	BF404876
250	0.5	666	14	CF747010	CF747010	323	0.4	342	10	BF375465	BF375465
251	0.5	685	14	CP532783	CP532783	324	0.4	350	13	BY010192	BY010192
252	0.5	714	14	CF747064	CF747064	325	0.4	364	10	BE711922	BE711922
253	0.5	753	14	CF727396	CF727396	326	0.4	366	10	BF396839	BF396839
254	0.5	759	29	EX232664	EX232664	327	0.4	420	9	A0233302	A0233302
255	0.5	766	29	EX156364	EX156364	328	0.4	421	13	BQ362963	BQ362963
256	0.5	770	14	CB246327	CB246327	329	0.4	428	10	BE955337	BE955337
257	0.5	779	14	CB272273	CB272273	330	0.4	438	10	AM462945	AM462945
258	0.5	817	14	CB525253	CB525253	331	0.4	444	28	AQ928604	AQ928604
259	0.5	817	14	CB525253	CB525253	332	0.4	456	14	CB740772	CB740772
260	0.5	203	13	BU701711	BU701711	333	0.4	482	10	AM505130	AM505130
261	0.5	244	14	R08384	R08384	334	0.4	504	10	BF404832	BF404832
262	0.5	402	9	AM024079	AM024079	335	0.4	507	10	BF401338	BF401338
263	0.5	418	10	AM636330	AM636330	336	0.4	510	10	BF417952	BF417952
264	0.5	426	28	AQ545955	AQ545955	337	0.4	524	12	B1343574	B1343574
265	0.5	442	10	AM487506	AM487506	338	0.4	531	9	AV615139	AV615139
266	0.5	442	12	BG834599	BG834599	339	0.4	537	12	BG988314	BG988314
267	0.5	523	9	AA629363	AA629363	340	0.4	538	10	BE664819	BE664819
268	0.5	523	12	B1847501	B1847501	341	0.4	538	14	CB432783	CB432783
269	0.5	552	9	AL798589	AL798589	342	0.4	558	9	AT353444	AT353444
270	0.5	572	9	AU169163	AU169163	343	0.4	571	10	BE965210	BE965210
271	0.5	624	12	BM312244	BM312244	344	0.4	593	14	CA381535	CA381535
272	0.5	642	9	AL781854	AL781854	345	0.4	594	29	CE724229	CE724229
273	0.5	655	9	AL710127	AL710127	346	0.4	610	14	CA379844	CA379844
274	0.5	666	14	CF747312	CF747312	347	0.4	620	10	CD497380	CD497380
275	0.5	695	9	AL710133	AL710133	348	0.4	635	14	CB519047	CB519047
276	0.5	706	13	EX781817	EX781817	349	0.4	650	9	AL595528	AL595528
277	0.5	724	14	CF286881	CF286881	350	0.4	665	13	B0432455	B0432455
278	0.5	729	13	BQ696918	BQ696918	351	0.4	674	14	BE950572	BE950572
279	0.5	770	13	EX781815	EX781815	352	0.4	676	14	CD348043	CD348043
280	0.5	774	13	EX781811	EX781811	353	0.4	703	10	CA354740	CA354740
281	0.5	785	29	CNS03DV2	CNS03DV2	354	0.4	716	10	AM128424	AM128424
282	0.5	867	13	EX723674	EX723674	355	0.4	716	12	BM671652	BM671652
283	0.5	871	29	CNS032PS	CNS032PS	356	0.4	716	13	B0574441	B0574441
284	0.5	906	13	B1364545	B1364545	357	0.4	735	14	CF737273	CF737273
285	0.5	959	29	CNS04LOZ	CNS04LOZ	358	0.4	737	14	CA512978	CA512978
286	0.5	965	29	CNS020V4	CNS020V4	359	0.4	751	12	BI524948	BI524948
287	0.5	967	10	BE902192	BE902192	360	0.4	789	13	EX320194	EX320194
288	0.5	996	9	AA348083	AA348083	361	0.4	789	13	BI196185	BI196185
289	0.5	300	10	B3086631	B3086631	362	0.4	860	29	CNS02CHV	CNS02CHV
290	0.5	433	10	BE721791	BE721791	363	0.4	884	10	BE737250	BE737250
291	0.5	460	10	BE809818	BE809818	364	0.4	901	13	BQ959274	BQ959274
292	0.5	504	14	CA542712	CA542712	365	0.4	906	13	BQ947921	BQ947921
293	0.5	589	13	BQ395092	BQ395092	366	0.4	929	13	BT916279	BT916279
294	0.5	606	14	CA387176	CA387176	367	0.4	951	13	BQ920350	BQ920350
295	0.5	612	13	BU290154	BU290154	368	0.4	999	13	BQ073659	BQ073659
296	0.4	657	9	AL710145	AL710145	369	0.4	1008	12	BM553544	BM553544

370	23	0.4	1147	12	EM474534	ACENCOURT	C 443	21	0.4	613	14	CF072243	CF072243
371	23	0.4	6885	11	AF548895	Xenopus I	444	21	0.4	629	10	BB656644	BB656644
372	22	0.4	196	9	AA146257	mq46c12.r	445	21	0.4	634	14	BY737421	BY737421
373	22	0.4	197	13	BI794488	IC90907.y	446	21	0.4	635	28	BH295836	BH295836
374	22	0.4	219	13	BQ306474	MRO-BT300	447	21	0.4	639	12	BM393457	BM393457
375	22	0.4	242	9	AA655055	vv12f07.r	448	21	0.4	643	12	BM337777	BM337777
376	22	0.4	321	13	BY346505	BY346505	449	21	0.4	645	14	BU702897	BU702897
377	22	0.4	333	13	BY346505	BY346505	450	21	0.4	645	14	CP904478	CP904478
378	22	0.4	397	10	BE372210	BE372210	451	21	0.4	644	14	CD424271	CD424271
379	22	0.4	400	13	BY310735	BY310735	452	21	0.4	661	14	CF732433	CF732433
380	22	0.4	412	28	AAQ973881	RPCI-23-3	453	21	0.4	667	10	BB653300	BB653300
381	22	0.4	445	9	AA144090	mq62n03.r	454	21	0.4	704	12	BI134654	BI134654
382	22	0.4	442	13	BY630457	BY630457	455	21	0.4	708	12	BI658106	BI658106
383	22	0.4	458	12	BF774252	283845.MA	456	21	0.4	715	28	BH973878	BH973878
384	22	0.4	488	12	BI499454	IC58409.Y	457	21	0.4	707	12	BY763622	BY763622
385	22	0.4	538	10	BB763000	BB763000	458	21	0.4	720	14	CD231662	CD231662
386	22	0.4	570	28	AZ994244	2M0279PF8	459	21	0.4	731	14	CB953946	CB953946
387	22	0.4	594	12	EG087906	HS146C10-	460	21	0.4	732	13	BU610785	BU610785
388	22	0.4	595	13	BU445924	BU445924	461	21	0.4	732	13	CA056774	CA056774
389	22	0.4	600	12	BI988602	4013-18.M	462	21	0.4	732	14	CD804196	CD804196
390	22	0.4	602	13	BQ308092	MRO-BT300	463	21	0.4	746	10	BF669458	BF669458
391	22	0.4	616	13	BU002750	OCG32002.r	464	21	0.4	749	14	CF539032	CF539032
392	22	0.4	633	10	BB651957	BB651957	465	21	0.4	751	12	BM946881	BM946881
393	22	0.4	656	13	BY720942	BY720942	466	21	0.4	753	13	BU646958	BU646958
394	22	0.4	658	10	BB079093	BB079093	467	21	0.4	753	14	CF870392	CF870392
395	22	0.4	671	12	BU068041	BU068041	468	21	0.4	755	12	AG184652	AG184652
396	22	0.4	672	12	BU489469	Pgm21.pko	469	21	0.4	774	12	BI854656	BI854656
397	22	0.4	707	14	CF950494	UI-M-HLO-	470	21	0.4	774	13	BQ572343	BQ572343
398	22	0.4	741	14	CF735159	UI-M-HBO-	471	21	0.4	780	9	AO080551	AO080551
399	22	0.4	871	10	BF204222	601867675	472	21	0.4	786	9	A1173889	A1173889
400	22	0.4	907	14	CB204955	ACENCOURT	473	21	0.4	796	14	CA320544	CA320544
401	22	0.4	910	10	CF583738	CF583738	474	21	0.4	803	10	BE512932	BE512932
402	22	0.4	931	10	BE858586	BE858586	475	21	0.4	803	28	BH393050	BH393050
403	22	0.4	971	13	BY718234	BY718234	476	21	0.4	805	13	BU709473	BU709473
404	22	0.4	990	13	BQ918649	AGENCOURT	477	21	0.4	806	14	CB900573	CB900573
405	22	0.4	1174	12	BM479213	BM479213	478	21	0.4	809	29	CNS0303G	CNS0303G
406	22	0.4	1570	11	AK034100	Mus muscu	479	21	0.4	817	13	BU614197	BU614197
407	22	0.4	1814	11	AK018097	Mus muscu	480	21	0.4	819	14	CD353586	CD353586
408	21	0.4	267	28	CC356494	PuHFR607B	481	21	0.4	820	14	CA450715	CA450715
409	21	0.4	292	12	BI342056	BI342056	482	21	0.4	829	14	CF730532	CF730532
410	21	0.4	301	9	AA077378	7B14D10.C	483	21	0.4	831	12	BI735472	BI735472
411	21	0.4	323	13	BY128741	BY128741	484	21	0.4	834	12	CA315530	CA315530
412	21	0.4	345	10	AM347841	AM347841	485	21	0.4	851	29	CNS0422W	CNS0422W
413	21	0.4	347	14	CB546028	AMGNNUC.N	486	21	0.4	852	13	BQ929727	BQ929727
414	21	0.4	348	14	F11945	HS23F101.n	487	21	0.4	863	13	BQ922139	BQ922139
415	21	0.4	399	13	BQ349459	MR2-HT037	488	21	0.4	877	14	CA476162	CA476162
416	21	0.4	403	14	CB768239	AMGNNUC.S	489	21	0.4	887	13	BU855411	BU855411
417	21	0.4	412	13	BY533492	BY533492	490	21	0.4	894	14	CB182577	CB182577
418	21	0.4	415	10	AM898023	AM898023	491	21	0.4	935	12	BG423548	BG423548
419	21	0.4	415	14	CB800131	CB800131	492	21	0.4	947	29	CNS0384V	CNS0384V
420	21	0.4	431	14	CA536495	CA536495	493	21	0.4	960	14	CA476779	CA476779
421	21	0.4	436	28	B2137551	CH230-256	494	21	0.4	962	13	BU145867	BU145867
422	21	0.4	440	13	BY536419	BY536419	495	21	0.4	971	13	BQ945270	BQ945270
423	21	0.4	444	13	BY553502	BY553502	496	21	0.4	977	13	BQ888076	BQ888076
424	21	0.4	453	10	BQ316398	PMO-CT032	497	21	0.4	986	12	BG421069	BG421069
425	21	0.4	473	10	AM488782	AM488782	498	21	0.4	1038	29	CNS0423C	CNS0423C
426	21	0.4	476	14	CF072986	PE1.26.FO	499	21	0.4	1065	29	CNS041TPU	CNS041TPU
427	21	0.4	485	10	AM564124	IC1_282.F	500	21	0.4	1086	12	BM543333	BM543333
428	21	0.4	492	10	BS650811	UI-M-BH3-	501	21	0.4	1094	29	CNS058K1	CNS058K1
429	21	0.4	511	28	BZ247757	CH230-363	502	21	0.4	1491	29	AY403184	AY403184
430	21	0.4	513	12	BG322938	EM1.15.HO	503	21	0.4	1589	29	BF133668	BF133668
431	21	0.4	513	28	CC328180	OGDAR47TH	504	21	0.4	2225	11	AK083185	AK083185
432	21	0.4	519	14	CB681756	OSJNRF08G	505	21	0.4	2676	11	AK084746	AK084746
433	21	0.4	536	10	BE394409	601311366	506	21	0.4	3043	11	AK051425	AK051425
434	21	0.4	548	14	CD545195	BE263A03-	507	21	0.4	105	9	A1940126	A1940126
435	21	0.4	553	28	AZ097801	RRC1-23-4	508	21	0.4	122	12	BG984330	BG984330
436	21	0.4	562	10	AM658223	108357.MA	509	21	0.4	133	10	AM633072	AM633072
437	21	0.4	564	29	CE598162	11gr-gs8-	510	21	0.4	148	9	AA363253	AA363253
438	21	0.4	570	14	CF795370	891499.MA	511	21	0.4	150	20	CA418759	CA418759
439	21	0.4	579	12	BI680360	458603.MA	512	21	0.4	151	9	AA186515	AA186515
440	21	0.4	582	14	CB586806	AMGNNUC.N	513	21	0.4	152	10	AM606479	AM606479
441	21	0.4	601	10	BE295227	601175212	514	21	0.4	152	10	AM606479	AM606479
442	21	0.4	604	14	CA729320	Wd11c.pko	515	21	0.4	158	14	NB5298	NB5298



C 516	20	0.4	159	9	AA324238	EST72311	C 589	20	0.4	280	9	AA374932	AA374932	EST79742
C 517	20	0.4	165	9	AA054826	F1-138LD	C 590	20	0.4	281	13	BY363416	BY363416	EST79742
C 518	20	0.4	169	10	BF350837	MR2-HT037	C 591	20	0.4	282	9	AA327042	AA327042	EST79742
C 519	20	0.4	169	13	BQ349149	MR2-HT037	C 592	20	0.4	282	14	CK228377	CK228377	701940666
C 520	20	0.4	171	9	AA303515	EST16417	C 593	20	0.4	284	9	AA321842	AA321842	EST724407
C 521	20	0.4	176	14	R57940	F7782 Fetal	C 594	20	0.4	284	9	AA373219	AA373219	EST85225
C 522	20	0.4	179	10	BF797284	602265902	C 595	20	0.4	287	10	AA407102	AA407102	UT-HF-BL0
C 523	20	0.4	181	10	BE062702	OYO-HT026	C 596	20	0.4	287	10	D55985	D55985	HUM409F02B
C 524	20	0.4	182	10	BF174924	MYE4061 M	C 597	20	0.4	288	10	BF758168	BF758168	CT057
C 525	20	0.4	183	14	CH115282	K-EST0160	C 598	20	0.4	288	9	AA327632	AA327632	EST731006
C 526	20	0.4	192	12	BM847370	K-EST0126	C 599	20	0.4	289	9	AA359623	AA359623	EST68755
C 527	20	0.4	199	10	BE272901	601171178	C 600	20	0.4	290	9	AA316107	AA316107	EST187830
C 528	20	0.4	205	14	D53311	HUM105805B	C 601	20	0.4	290	9	AA380757	AA380757	EST93771
C 529	20	0.4	207	9	AA354394	EST62865	C 602	20	0.4	291	9	AA369717	AA369717	EST81160
C 530	20	0.4	207	12	BM855358	K-EST0138	C 603	20	0.4	292	14	N85715	N85715	J4709F Huma
C 531	20	0.4	214	10	AM250280	2821291.5	C 604	20	0.4	294	9	AA303651	AA303651	EST16300
C 532	20	0.4	216	14	CP182546	UT-M-Byo-	C 605	20	0.4	294	9	AA360956	AA360956	EST70160
C 533	20	0.4	227	9	AA344981	EST51103	C 606	20	0.4	296	12	BM707668	BM707668	UT-F-CT1-
C 534	20	0.4	227	9	AA380618	EST93678	C 607	20	0.4	296	12	BM759123	BM759123	K-EST0039
C 535	20	0.4	228	9	AA378455	EST91152	C 608	20	0.4	299	9	AA319628	AA319628	EST21898
C 536	20	0.4	228	13	BQ316716	PMO-CT032	C 609	20	0.4	299	9	AA299524	AA299524	EST12044
C 537	20	0.4	229	9	AA348975	EST55515	C 610	20	0.4	300	9	AU098629	AU098629	AU098629
C 538	20	0.4	230	9	A1630538	ad12b03.Y	C 611	20	0.4	300	9	AA301672	AA301672	EST14707
C 539	20	0.4	232	10	BF176264	MYE6724 M	C 612	20	0.4	300	13	C15642	C15642	EST14707
C 540	20	0.4	232	13	BQ084239	K-EST0148	C 613	20	0.4	301	14	N87533	N87533	LI1553F Huma
C 541	20	0.4	233	9	AA095629	15320. seg	C 614	20	0.4	303	9	AA300193	AA300193	EST12823
C 542	20	0.4	233	14	CD693629	EST10152	C 615	20	0.4	306	14	AA327616	AA327616	EST30898
C 543	20	0.4	234	10	AA404883	UT-HF-BL0	C 616	20	0.4	306	14	CB114361	CB114361	K-EST0157
C 544	20	0.4	234	10	BB848214	BB848214	C 617	20	0.4	306	14	N88339	N88339	K3125F Huma
C 545	20	0.4	234	14	N89467	LY1179F Huma	C 618	20	0.4	308	9	AA379387	AA379387	EST92250
C 546	20	0.4	235	9	AA317384	EST19319	C 619	20	0.4	308	10	AM408211	AM408211	UT-HF-BL0
C 547	20	0.4	235	10	BF176302	MYE6776 M	C 620	20	0.4	308	14	CB107775	CB107775	K-EST0147
C 548	20	0.4	236	10	BE391698	601285918	C 621	20	0.4	309	13	BM084407	BM084407	EST34218
C 549	20	0.4	237	10	BE182717	KC3-HT065	C 622	20	0.4	310	9	AA774454	AA774454	432608.8
C 550	20	0.4	237	10	BE182717	KC3-HT065	C 623	20	0.4	310	9	AA307825	AA307825	EST16492
C 551	20	0.4	238	10	BE709025	QV2-HT057	C 624	20	0.4	311	14	T33057	T33057	EST16492
C 552	20	0.4	238	10	BE709073	QV2-HT057	C 625	20	0.4	311	14	BG944013	BG944013	EST16492
C 553	20	0.4	239	9	AA379511	EST92358	C 626	20	0.4	312	14	N86184	N86184	KK044F Huma
C 554	20	0.4	241	14	CK228356	700932458	C 627	20	0.4	312	14	N86184	N86184	KK044F Huma
C 555	20	0.4	242	12	BM845329	K-EST0123	C 628	20	0.4	313	14	N86184	N86184	KK044F Huma
C 556	20	0.4	242	12	BM845329	K-EST0123	C 629	20	0.4	317	9	AA379584	AA379584	EST92485
C 557	20	0.4	243	12	BM845329	K-EST0123	C 630	20	0.4	320	14	H84395	H84395	YV65H10. r1
C 558	20	0.4	244	13	BM845329	K-EST0123	C 631	20	0.4	323	9	AA362957	AA362957	EST72819
C 559	20	0.4	251	14	CB114327	K-EST0157	C 632	20	0.4	324	9	AA299674	AA299674	EST12216
C 560	20	0.4	251	14	CB114327	K-EST0157	C 633	20	0.4	324	9	AA436473	AA436473	ZV08E08.8
C 561	20	0.4	252	14	W46597	zC32911. r1	C 634	20	0.4	329	9	AA385891	AA385891	EST99590
C 562	20	0.4	254	9	AA379264	EST92293	C 635	20	0.4	329	12	BP432650	BP432650	BP432650
C 563	20	0.4	255	10	BF841625	MR1-HT106	C 636	20	0.4	329	14	CD708234	CD708234	EST24761
C 564	20	0.4	255	14	CB117774	K-EST0163	C 637	20	0.4	330	9	AA332349	AA332349	EST36363
C 565	20	0.4	256	9	AA093478	KH8157.86	C 638	20	0.4	332	9	AA056711	AA056711	2166F06. r
C 566	20	0.4	256	9	AT940120	R01-CT003	C 639	20	0.4	332	9	AA378649	AA378649	EST92515
C 567	20	0.4	256	10	BF445924	7P16C07. x	C 640	20	0.4	333	10	BE378407	BE378407	60126738
C 568	20	0.4	258	9	AA334037	EST38186	C 641	20	0.4	335	9	AA378914	AA378914	EST91666
C 569	20	0.4	258	13	BQ302910	MR2-BT059	C 642	20	0.4	338	9	AA376559	AA376559	EST88993
C 570	20	0.4	259	9	AA089673	chm0403. s	C 643	20	0.4	340	9	AA316739	AA316739	EST188474
C 571	20	0.4	260	14	CK228374	701881964	C 644	20	0.4	340	9	AA354788	AA354788	EST63101
C 572	20	0.4	261	14	N83648	KX1702F Huma	C 645	20	0.4	340	12	BP430081	BP430081	BP430081
C 573	20	0.4	262	14	AA092328	116679. se	C 646	20	0.4	340	12	BP430081	BP430081	BP430081
C 574	20	0.4	262	9	AA370834	EST82584	C 647	20	0.4	341	14	CB143463	CB143463	K-EST0197
C 575	20	0.4	264	10	AA384255	MR2-HT037	C 648	20	0.4	341	10	AA683689	AA683689	AV683689
C 576	20	0.4	266	9	AA374881	EST87250	C 649	20	0.4	341	10	AA683689	AA683689	AV683689
C 577	20	0.4	267	9	AA374519	EST86658	C 650	20	0.4	343	12	BM745901	BM745901	K-EST0019
C 578	20	0.4	267	10	BF922403	QV2-NT014	C 651	20	0.4	343	14	T16854	T16854	NIB1939-SR
C 579	20	0.4	267	12	BM746339	K-EST0020	C 652	20	0.4	344	14	CA780661	CA780661	MDL384. 7-
C 580	20	0.4	268	9	AA355580	EST64086	C 653	20	0.4	345	9	AT094196	AT094196	ga29d07. b
C 581	20	0.4	272	9	AA300909	EST13862	C 654	20	0.4	345	14	AA360276	AA360276	EST69396
C 582	20	0.4	273	9	AA323637	n17b12. b	C 655	20	0.4	345	13	BO496268	BO496268	EST05497
C 583	20	0.4	274	9	AA396596	EST11147	C 656	20	0.4	345	13	CO2952	CO2952	CO2952
C 584	20	0.4	275	9	AA301191	EST14104	C 657	20	0.4	346	14	T31443	T31443	EST12585 Hu
C 585	20	0.4	275	9	AA320961	EST33520	C 658	20	0.4	346	9	AA317760	AA317760	EST19741
C 586	20	0.4	275	9	AA329861	EST33520	C 659	20	0.4	347	9	AA363102	AA363102	EST72928
C 587	20	0.4	277	9	AA385628	EST99300	C 660	20	0.4	348	12	BP430056	BP430056	BP430056
C 588	20	0.4	278	14	CB139463	K-EST0192	C 661	20	0.4	350	9	AA095160	AA095160	cp3028. se

C 662	20	0.4	350	9	AV657207	AV657207	AV657207	C 735	20	0.4	399	12	BM697932	BM697932	UI-E-DX0-
C 663	20	0.4	350	14	CAS41538	CAS41538	CAS41538	C 736	20	0.4	399	12	BM765131	BM765131	K-EST0046
C 664	20	0.4	350	14	CB265451	CB265451	CB265451	C 737	20	0.4	400	13	BM316717	BM316717	PMO-CT032
C 665	20	0.4	353	12	BM698372	BM698372	BM698372	C 738	20	0.4	400	9	AA315622	AA315622	EST187444
C 666	20	0.4	353	13	BU954892	BU954892	BU954892	C 739	20	0.4	402	14	CB110445	CB110445	K-EST0151
C 667	20	0.4	355	9	AV660935	AV660935	AV660935	C 740	20	0.4	403	13	BQ302024	BQ302024	PM3-BT035
C 668	20	0.4	355	9	AV687152	AV687152	AV687152	C 741	20	0.4	403	14	CA348966	CA348966	IQ30109.Y
C 669	20	0.4	357	12	BM838841	BM838841	BM838841	C 742	20	0.4	403	14	W07028	W07028	zab1h06.r1
C 670	20	0.4	357	9	AA310685	AA310685	AA310685	C 743	20	0.4	404	13	AA315752	AA315752	z044908.r
C 671	20	0.4	358	9	AV689298	AV689298	AV689298	C 744	20	0.4	404	13	AA365061	AA365061	EST175745
C 672	20	0.4	358	9	AA378175	AA378175	AA378175	C 745	20	0.4	404	12	BM644227	BM644227	K-EST0122
C 673	20	0.4	358	13	BU589595	BU589595	BU589595	C 746	20	0.4	404	13	BQ316399	BQ316399	PMO-CT032
C 674	20	0.4	360	9	AA092605	AA092605	AA092605	C 747	20	0.4	404	13	BQ349172	BQ349172	MR2-HT037
C 675	20	0.4	361	9	AA334401	AA334401	AA334401	C 748	20	0.4	405	9	AA327191	AA327191	EST134955
C 676	20	0.4	362	12	BM784746	BM784746	BM784746	C 749	20	0.4	405	10	BE280351	BE280351	EST134955
C 677	20	0.4	363	9	AA545754	AA545754	AA545754	C 750	20	0.4	405	13	BY650605	BY650605	BY650605
C 678	20	0.4	363	10	BF170190	BF170190	BF170190	C 751	20	0.4	406	12	BG686511	BG686511	602637461
C 679	20	0.4	364	14	CAS65301	CAS65301	CAS65301	C 752	20	0.4	406	12	BM834962	BM834962	K-EST0110
C 680	20	0.4	366	9	AA657772	AA657772	AA657772	C 753	20	0.4	406	14	CB109990	CB109990	K-EST0151
C 681	20	0.4	366	9	AA083546	AA083546	AA083546	C 754	20	0.4	406	14	CB114314	CB114314	K-EST0157
C 682	20	0.4	366	12	BI021550	BI021550	BI021550	C 755	20	0.4	407	9	AV763747	AV763747	AV763747
C 683	20	0.4	366	13	BQ349182	BQ349182	BQ349182	C 756	20	0.4	407	12	AA506018	AA506018	ni02804.S
C 684	20	0.4	367	12	BM761700	BM761700	BM761700	C 757	20	0.4	407	12	BM836012	BM836012	K-EST0111
C 685	20	0.4	368	9	AA314463	AA314463	AA314463	C 758	20	0.4	407	13	BQ349228	BQ349228	MR2-HT037
C 686	20	0.4	368	12	BI710858	BI710858	BI710858	C 759	20	0.4	408	10	AA406770	AA406770	UI-HF-BL0
C 687	20	0.4	369	9	AA380091	AA380091	AA380091	C 760	20	0.4	408	12	BM849673	BM849673	K-EST0129
C 688	20	0.4	370	10	AA456469	AA456469	AA456469	C 761	20	0.4	409	12	BM744829	BM744829	K-EST0018
C 689	20	0.4	370	29	CE489047	CE489047	CE489047	C 762	20	0.4	409	13	BQ349008	BQ349008	MR2-HT037
C 690	20	0.4	374	12	BP431251	BP431251	BP431251	C 763	20	0.4	409	13	BM483998	BM483998	K-EST0151
C 691	20	0.4	375	9	AA1130268	AA1130268	AA1130268	C 764	20	0.4	410	9	AA379891	AA379891	EST97782
C 692	20	0.4	375	12	BM716419	BM716419	BM716419	C 765	20	0.4	410	10	BF975799	BF975799	60224663
C 693	20	0.4	377	14	W07669	W07669	W07669	C 766	20	0.4	411	10	BE276230	BE276230	601144312
C 694	20	0.4	377	14	W24570	W24570	W24570	C 767	20	0.4	411	12	BM687475	BM687475	UI-E-CR0-
C 695	20	0.4	378	12	BM754157	BM754157	BM754157	C 768	20	0.4	411	12	BM785068	BM785068	K-EST0063
C 696	20	0.4	378	14	CB107461	CB107461	CB107461	C 769	20	0.4	412	9	AA377959	AA377959	EST90602
C 697	20	0.4	379	9	AA157651	AA157651	AA157651	C 770	20	0.4	412	9	BM799435	BM799435	K-EST0083
C 698	20	0.4	379	12	BI134178	BI134178	BI134178	C 771	20	0.4	412	13	BQ084071	BQ084071	K-EST0147
C 699	20	0.4	382	12	BM766498	BM766498	BM766498	C 772	20	0.4	413	13	BQ349120	BQ349120	MR2-HT037
C 700	20	0.4	382	12	BM798516	BM798516	BM798516	C 773	20	0.4	413	13	BM316032	BM316032	BM316032
C 701	20	0.4	382	12	BM798516	BM798516	BM798516	C 774	20	0.4	413	14	CA370160	CA370160	CA370160
C 702	20	0.4	382	14	CD687892	CD687892	CD687892	C 775	20	0.4	414	9	AA384750	AA384750	EST96412
C 703	20	0.4	383	14	BF174356	BF174356	BF174356	C 776	20	0.4	414	13	BM316033	BM316033	BM316033
C 704	20	0.4	384	10	BE127750	BE127750	BE127750	C 777	20	0.4	414	13	BM316265	BM316265	BM316265
C 705	20	0.4	384	12	BM857283	BM857283	BM857283	C 778	20	0.4	415	13	BY155714	BY155714	BY155714
C 706	20	0.4	385	9	AA345769	AA345769	AA345769	C 779	20	0.4	415	13	W24421	W24421	z060411.r1
C 707	20	0.4	387	9	AA393751	AA393751	AA393751	C 780	20	0.4	416	10	AA580062	AA580062	MR2-HT037
C 708	20	0.4	387	10	BE741611	BE741611	BE741611	C 781	20	0.4	416	12	BQ876838	BQ876838	MR2-HT037
C 709	20	0.4	388	9	AA770958	AA770958	AA770958	C 782	20	0.4	416	12	BQ349050	BQ349050	MR2-HT037
C 710	20	0.4	388	12	BM773102	BM773102	BM773102	C 783	20	0.4	416	14	CB121844	CB121844	K-EST0169
C 711	20	0.4	388	14	CA888851	CA888851	CA888851	C 784	20	0.4	417	12	BM846469	BM846469	K-EST0125
C 712	20	0.4	388	14	CA888851	CA888851	CA888851	C 785	20	0.4	417	13	BQ349026	BQ349026	MR2-HT037
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C 714	20	0.4	388	14	W21418	W21418	W21418	C 787	20	0.4	418	10	BG876940	BG876940	MR2-HT037
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C 716	20	0.4	390	12	BM794655	BM794655	BM794655	C 789	20	0.4	418	13	W05304	W05304	W05304
C 717	20	0.4	390	12	BM794655	BM794655	BM794655	C 790	20	0.4	418	14	W05304	W05304	W05304
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C 719	20	0.4	391	13	EQ333257	EQ333257	EQ333257	C 792	20	0.4	419	12	BG876832	BG876832	MR2-HT037
C 720	20	0.4	391	13	BY618586	BY618586	BY618586	C 793	20	0.4	419	12	BM845957	BM845957	MR2-HT037
C 721	20	0.4	393	10	BM900164	BM900164	BM900164	C 794	20	0.4	419	14	W19623	W19623	z03509.r1
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C 724	20	0.4	394	10	AA580113	AA580113	AA580113	C 797	20	0.4	420	13	BQ349012	BQ349012	MR2-HT037
C 725	20	0.4	395	10	AA580113	AA580113	AA580113	C 798	20	0.4	420	13	BQ349041	BQ349041	MR2-HT037
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C 727	20	0.4	395	14	HI9560	HI9560	HI9560	C 800	20	0.4	420	14	CB2988274	CB2988274	220009.r1
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818	20	0.4	425	13	BQ349175	BE779551	891	20	0.4	451	14	CA941572	CA941572
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824	20	0.4	428	12	BG925506	BG925506	897	20	0.4	453	13	BQ316697	BQ316697
825	20	0.4	428	13	BQ349019	MR2-HT037	898	20	0.4	453	13	BQ349016	BQ349016
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866	20	0.4	442	13	BY452230	BY452230	939	20	0.4	465	12	AA314715	AA314715
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880	20	0.4	448	13	BQ349010	MR2-HT037	953	20	0.4	468	13	BQ362978	BQ362978



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 Db 252 TGCTCTCCGAGCCTTGAAGTCCCGGCTAACCGGAGAGCTGTGAGAAAGGCTTGA 311  
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 QY 4119 GTCCCAAGCTTGTCTCAATGCGGAGCCGTGCAAGCTGTCTCAATGAGACCT 4178  
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 QY 4179 GCTGAGAGAGCTGAGAGAGCTGAGAGAGCTGAGAGAGCTGAGAGAGCTGAG 428  
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RESULT 2  
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 LOCUS DKEP2686G07110.1 r1 686 (synonym: h1c3) Homo sapiens cDNA clone

DEFINITION DKEP2686G07110.1 5', mRNA sequence.  
 Bx470595  
 Bx470595.1 GI:31664922

KEYWORDS EST.  
 SOURCE Homo sapiens (human)

ORGANISM Homo sapiens (human)  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 618)  
 Koehler, K., Beyer, A., Mewes, H.W., Well, B., Amd, C., Osanger, A.,  
 Pöb, G., Han, M., and Wiemann, S.

AUTHORS EST (Koehler, K., Beyer, A., Mewes, H.W., Well, B., Amd, C., et al.)  
 TITLE Unpublished (2003)

JOURNAL COMMENT: MIPS

CONTACT: MIPS  
 Ingolstaedter Landstr.1, D-85764 Neuherberg, Germany

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ORIGIN

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Matches 613; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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 QY 2923 ACAGGACCAACCTGATATGCGGAGAGCAAGCTGTGTGATGTTGAAAGCAGCCCTGT 2982  
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RESULT 3

AL707761 483 bp mRNA linear EST 04-SEP-2003

LOCUS DKEP2686H2349.1 r1 686 (synonym: h1c3) Homo sapiens cDNA clone

DEFINITION DKEP2686H2349.1 5', mRNA sequence.  
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KEYWORDS EST.  
 SOURCE Homo sapiens (human)

ORGANISM Homo sapiens (human)  
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 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.

REFERENCE 1 (bases 1 to 483)  
 Wamburt, R., Heubner, D., Mewes, H.W., Well, B., and Wiemann, S.

AUTHORS EST (Wamburt, R., Heubner, D., Mewes, H.W., Well, B., and Wiemann, S.)  
 TITLE Unpublished (1999)

JOURNAL COMMENT: MIPS

CONTACT: MIPS  
 Ingolstaedter Landstr.1, D-85764 Neuherberg, Germany

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 cDNA-collection"

ORIGIN  
 Query Match 10.8%; Score 613; Db 13; Length 618;  
 Best Local Similarity 100.0%; Pred. No. 2e-273;  
 This clone (DKEP2686H2349) is available at the RZPD in Berlin.

Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de.  
Location/Qualifiers

# FEATURES

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## ORIGIN

Query Match 8.0%; Score 457; DB 9; Length 483;  
Best Local Similarity 100.0%; Pred. No. 7.4e-201;  
Matches 457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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1 GAGTGAAGCTGCGCCGAGAGCTGCGCCGAGCTGCTGCGAGTGGACAGATCCTGGTGGCCG 60  
2141 TGAAGGTATCAAGCTTATCAAGCTGAGAGCCCAAGAACTCTCCCAAGCTGCTGGGC 2200  
61 TGAAGGTATCAAGCTTATCAAGCTGAGAGCCCAAGAACTCTCCCAAGCTGCTGGGC 120  
2201 AGCGTGGCTCAAGATGCTATCAATTCAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2260  
121 AGCGTGGCTCAAGATGCTATCAATTCAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 180  
2261 GCTTCAACAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAG 2320  
181 GCTTCAACAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAG 240  
2321 TCAACAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCT 2380  
241 TCAACAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCTCAGCT 300  
2381 CAGCTCAGATTAAGTTTACCTCTACAGTGGAGCCATGGGTAGAGCTGGCGGCTGT 2440  
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361 GCCTCAAGGCTGACCCAGATTCGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 420  
2501 TGGCCAGAGCTGCGCTGCGCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2537  
421 TGGCCAGAGCTGCGCTGCGCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 457

RESULT 4 473 bp mRNA linear EST 04-SEP-2003  
EX645676  
LOCUS DKFZp781K1545.1 781 (synonym: hicc4) Homo sapiens cDNA clone  
DEFINITION DKFZp781K1545.1, mRNA sequence.  
ACCESSION EX645676  
VERSION EX645676.1 GI:34480009  
KEYWORDS EST.  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
1 (bases 1 to 473)  
Wamburt,R., Heubner,D., Mewes,H.W., Weil,B., Amid,C., Oeanger,A., Fobio,G., Han,W. and Wiemann,S.  
EST (Wamburt,R., Heubner,D., Mewes,H.W., Weil,B., Amid,C., et al.)  
Unpublished (2003)  
CONTACT: MIPS  
MIPS Ingolstaedter Landstr.1, D-85764 Neuberg, Germany  
This is the 5' sequence of the clone insert

Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKFZ), Email: s.wiemann@dkfz-heidelberg.de; sequenced by AGOWA (Berlin/Germany) within the cDNA sequencing consortium of the German Genome Project.

No si sequence available.

This clone (DKFZp781K1545) is available at the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de.  
Location/Qualifiers

# FEATURES

source

1..473

/organism="Homo sapiens"  
/mol\_type="mRNA"  
/db\_xref="taxon:9606"  
/clone="DKFZp781K1545"  
/dev\_stage="adult"  
/lab\_host="DH10B"  
/clone\_id="781 (synonym: hicc4)"  
/note="Vector: pSport1\_Sfi; Site\_1: SfiI; Site\_2: SfiI; cDNA-collection"

## ORIGIN

Query Match 7.4%; Score 422; DB 13; Length 473;  
Best Local Similarity 99.8%; Pred. No. 1.4e-184;  
Matches 472; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

3185 GAGCCCACTGAGCTCATAGAGAACCCAGATCGTGGCCAGATGAGAGAGAGAGC 3244  
1 GAGCCCACTGAGCTCATAGAGAACCCAGATCGTGGCCAGATGAGAGAGAGAGC 60  
3245 AATTAATCTGAGAGCTTCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 3304  
61 AATTAATCTGAGAGCTTCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 120  
3305 CTCTGGGCTCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 3364  
121 CTCTGGGCTCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 180  
3365 TGAAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 3424  
181 TGAAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 240  
3425 CGTGTGTTGAGAGCTTGTGCTCAGAGATCTGAGAGCTGAGAGCTGAGAGCTGAGAG 3484  
241 CGTGTGTTGAGAGCTTGTGCTCAGAGATCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 300  
3485 TCTTAAAGGGAGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 3544  
301 TCTTAAAGGGAGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 360  
3545 CTGTGCTGTTGGGGAGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 3604  
361 CTGTGCTGTTGGGGAGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 420  
3605 ACTCCCACTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 3657  
421 ACTCCCACTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCT 473

RESULT 5 564 bp mRNA linear EST 22-JAN-2001  
BF953019  
LOCUS QV3-NN0198-111100-373-h10 NN0198 Homo sapiens cDNA, mRNA sequence.  
DEFINITION BF953019  
ACCESSION BF953019.1 GI:12370294  
KEYWORDS EST.  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
1 (bases 1 to 564)  
Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F., Goldman,G.H., Carvalho,A.F., Matsukuma,A., Bala,G.S., Simpson,D.H.,







QY 5622 TGGGAGCGAAGAACTGGCTTACAACTGACAGAGTCAACCTCATGAGCTTAAACAG 5681  
 DB 196 TGGGAGCGAAGAACTGGCTTACAACTGACAGAGTCAACCTCATGAGCTTAAACAG 137  
 QY 5682 CTGA 5685  
 DB 136 CTGA 133

RESULT 7  
 AA077700/c 232 bp mRNA linear EST 24-SEP-1999  
 LOCUS 7B44808 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA  
 DEFINITION  
 AA077700  
 VERSION  
 AA077700.1 GI:1837174  
 KEYWORDS  
 EST.  
 SOURCE  
 Homo sapiens (human)  
 ORGANISM  
 Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
 REFERENCE  
 1 (bases 1 to 232)  
 Touchman, J.W., Bouffard, G.G., Weintraub, L.A., Idol, J.R., Wang, L.,  
 Robbins, C.M., Nusbaum, J.C., Lovett, M., and Green, E.D.  
 2006 expressed-sequence tags derived from human chromosome  
 7-enriched cDNA libraries  
 Genome Res. 7 (3), 281-292 (1997)

TITLE  
 2006 expressed-sequence tags derived from human chromosome  
 7-enriched cDNA libraries  
 JOURNAL  
 Genome Res. 7 (3), 281-292 (1997)  
 MEDLINE  
 97228905  
 PUBMED  
 9074931  
 COMMENT  
 Contact: Eric D. Green  
 Genome Technology Branch  
 National Human Genome Research Institute/NIH  
 49 Convent Dr., MSC4431, Building 49, Room 2A08, Bethesda, MD 20892  
 Tel: 3014020201  
 Fax: 3014024735  
 Email: egreen@hghri.nih.gov  
 Plate: 44 row: B column: 08  
 Seq primer: -21M13 (ABI).  
 Location/Qualifiers  
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 source  
 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /clone="7B44808"  
 /sex="female and male mixture"  
 /tissue\_type="brain"  
 /dev\_stage="pool of 9 week and 12 week"  
 /lab\_host="E. coli strain DHS alpha"  
 /note="Organ: brain; Vector: pAMP10; cDNA was generated from cytoplasmic RNA using a mixture of random DNA hexamers and oligo(dT). From this pool of cDNA, human chromosome 7-enriched cDNA was isolated by direct cDNA selection using chromosome 7 genomic DNA (cosmids). The resulting direct-selected cDNA was cloned into a plasmid vector using a non-directional uracil DNA glycosylase (UDG)-mediated cloning strategy."

ORIGIN  
 Query Match 4.1%; Score 232; DB 9; Length 232;  
 Best Local Similarity 100.0%; Pred. No. 3.1e-96;  
 Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1766 CTGGGCTCAACTGACCTTGGAGACCTGTGAGATGGATGGAGTGGTGGTGGGCAATC 1825  
 DB 232 CTGGGCTCAACTGACCTTGGAGACCTGTGAGATGGATGGAGTGGTGGTGGGCAATC 173  
 QY 1826 AGATCCAGTCTACTCCCTCGACGCCAAGAGAGTGTCCCGATCTATCAAGAGATGGG 1885  
 DB 172 AGATCCAGTCTACTCCCTCGACGCCAAGAGAGTGTCCCGATCTATCAAGAGATGGG 113  
 QY 1886 ACCACCATGTCTGACAGCTTCAAGTCAATCAAGAGAGCCGCGATGACTTCCGCAACA 1945

DB 112 ACCACCATGTCTGACAGCTTCAAGTCAATCAAGAGAGCCGCGATGACTTCCGCAACA 53  
 QY 1946 CCAGCTTGTCTTCTTCAATTCAGAGCTTCAATTCAGAGCTTGTCTGTCTGTGGT 1997  
 DB 52 CCAGCTTGTCTTCTTCAATTCAGAGCTTCAATTCAGAGCTTGTCTGTCTGTGGT 1

RESULT 8  
 AA077556/c 233 bp mRNA linear EST 24-SEP-1999  
 LOCUS 7B19F10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA  
 DEFINITION  
 AA077556  
 VERSION  
 AA077556.1 GI:1837030  
 KEYWORDS  
 EST.  
 SOURCE  
 Homo sapiens (human)  
 ORGANISM  
 Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
 REFERENCE  
 1 (bases 1 to 233)  
 Touchman, J.W., Bouffard, G.G., Weintraub, L.A., Idol, J.R., Wang, L.,  
 Robbins, C.M., Nusbaum, J.C., Lovett, M., and Green, E.D.  
 2006 expressed-sequence tags derived from human chromosome  
 7-enriched cDNA libraries  
 Genome Res. 7 (3), 281-292 (1997)

TITLE  
 2006 expressed-sequence tags derived from human chromosome  
 7-enriched cDNA libraries  
 JOURNAL  
 Genome Res. 7 (3), 281-292 (1997)  
 MEDLINE  
 97228905  
 PUBMED  
 9074931  
 COMMENT  
 Contact: Eric D. Green  
 Genome Technology Branch  
 National Human Genome Research Institute/NIH  
 49 Convent Dr., MSC4431, Building 49, Room 2A08, Bethesda, MD 20892  
 Tel: 3014020201  
 Fax: 3014024735  
 Email: egreen@hghri.nih.gov  
 Plate: 19 row: F column: 10  
 Seq primer: -21M13 (ABI).  
 Location/Qualifiers  
 1..233  
 source  
 /organism="Homo sapiens"  
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 /clone="7B19F10"  
 /sex="female and male mixture"  
 /tissue\_type="brain"  
 /dev\_stage="pool of 9 week and 12 week"  
 /lab\_host="E. coli strain DHS alpha"  
 /note="Organ: brain; Vector: pAMP10; cDNA was generated from cytoplasmic RNA using a mixture of random DNA hexamers and oligo(dT). From this pool of cDNA, human chromosome 7-enriched cDNA was isolated by direct cDNA selection using chromosome 7 genomic DNA (cosmids). The resulting direct-selected cDNA was cloned into a plasmid vector using a non-directional uracil DNA glycosylase (UDG)-mediated cloning strategy."

ORIGIN  
 Query Match 3.8%; Score 215; DB 9; Length 233;  
 Best Local Similarity 100.0%; Pred. No. 2.5e-86;  
 Matches 215; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3929 CCGGATTCCTGCTTCTGAGATGAACTTACACCATGCGGCTGCTTCCAGGAATTG 3988  
 DB 233 CCGGATTCCTGCTTCTGAGATGAACTTACACCATGCGGCTGCTTCCAGGAATTG 174  
 QY 3989 AAGACCCACCTGTCTCTCGGAGACCTTGAAGTCCCGGCTACCGGACAGAGCGTGTGAGA 4048  
 DB 173 AAGACCCACCTGTCTCTCGGAGACCTTGAAGTCCCGGCTACCGGACAGAGCGTGTGAGA 114  
 QY 4049 AAGGCTGAAGCTCTTCCGCCAGCTCATCAACAAGAGTGTCTCTCTCTTCTTCTCC 4108  
 DB 113 AAGGCTGAAGCTCTTCCGCCAGCTCATCAACAAGAGTGTCTCTCTCTTCTTCTCC 54

QY 4109 GCACGCTTGAAGTCCAGGCTAGCTTCTCCATGCC 4143  
 DB 53 GCACGCTTGAAGTCCAGGCTAGCTTCTCCATGCC 19  
 RESULT 9  
 LOCUS AA077578/c  
 DEFINITION 251 bp mRNA linear EST 24-SEP-1999  
 7B19H10 Chromosome 7 Fetal Brain CDNA library Homo sapiens CDNA  
 clone 7B19H10, mRNA sequence.  
 AA077578  
 VERSION AA077578.1 GI:1837052  
 KEYWORDS EST.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
 1 (bases 1 to 251)  
 Touchman, J.W., Bouffard, G.G., Weintraub, L.A., Idol, J.R., Wang, L.,  
 Robbins, C.M., Nussbaum, J.C., Lovett, M. and Green, E.D.  
 2006 expressed-sequence tags derived from human chromosome  
 7-enriched cDNA libraries  
 Genome Res. 7 (3), 281-292 (1997)  
 JOURNAL 97228905  
 MEDLINE 9074931  
 COMMENT Contact: Eric D. Green  
 Genome Technology Branch  
 National Human Genome Research Institute/NIH  
 49 Convent Dr., MSC4431, Building 49, Room 2A08, Bethesda, MD 20892  
 Tel: 3014020201  
 Fax: 3014024735  
 Email: egreen@hgri.nih.gov  
 Plate: 19 row: H column: 10  
 Seq primer: -21M13 (ABT).  
 Location/Qualifiers  
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 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /clone="7B19H10"  
 /sex="female and male mixture"  
 /tissue\_type="brain"  
 /dev\_stage="pool of 9 week and 12 week"  
 /lab\_host="B. coli strain DHS alpha"  
 /clone\_lib="Chromosome 7 Fetal Brain CDNA library"  
 /note="Organ: brain; Vector: pAMP10; CDNA was generated  
 from cytoplasmic RNA using a mixture of random DNA  
 hexamers and oligo(dT). From this pool of CDNA, human  
 chromosome 7-enriched cDNA was isolated by direct CDNA  
 selection using chromosome 7 genomic DNA (cosmids). The  
 resulting direct-selected cDNA was cloned into a plasmid  
 vector using a non-directional uracil DNA glycosylase  
 (UDG)-mediated cloning strategy."

ORIGIN  
 Query Match 3.6%; Score 206; DB 9; Length 251;  
 Best Local Similarity 100.0%; Pred. No. 4e-84;  
 Matches 206; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1642 CCCCCGAGTTGCTCCGAGATGAAGCATGTGTCGCGTGAAGCGTCCATCCACAT 1701  
 DB 206 CCCCCGAGTTGCTCCGAGATGAAGCATGTGTCGCGTGAAGCGTCCATCCACAT 147  
 QY 1702 ATCTCGTCTCTAGTACAAAGTGTCTGTCTGTCTGAGAGCATATGTCCTCCGAGCTG 1761  
 DB 146 ATCTCGTCTCTAGTACAAAGTGTCTGTCTGTCTGAGAGCATATGTCCTCCGAGCTG 87  
 QY 1762 TCAGCTGGGCTCAATCGACCTTTGAGAGCCTGTCAAGATGATGAGGCTGGTGGTGGCC 1821  
 DB 86 TCAGCTGGGCTCAATCGACCTTTGAGAGCCTGTCAAGATGATGAGGCTGGTGGTGGCC 27  
 QY 1822 AATCAGATCCAGTGTACTCCCTGC 1847

DB 26 AATCAGATCCAGTGTACTCCCTGC 1  
 RESULT 10  
 LOCUS BP953008/c  
 DEFINITION 493 bp mRNA linear EST 22-JAN-2001  
 QV3-NN0198-111100-373-b07 NN0198 Homo sapiens CDNA, mRNA sequence.  
 BP953008  
 VERSION BP953008.1 GI:12370283  
 KEYWORDS EST.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
 1 (bases 1 to 493)  
 Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,  
 Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,  
 Goldman, G.R., Carvalho, A.F., Matsukuma, A., Bala, G.S., Simpson, D.H.,  
 Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V.,  
 O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and  
 Simpson, A.U.  
 Shotgun sequencing of the human transcriptome with ORF expressed  
 sequence tags  
 Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)  
 JOURNAL 20202663  
 MEDLINE 10737800  
 COMMENT Contact: Simpson, A.J.G.  
 Laboratory of Cancer Genetics  
 Ludwig Institute for Cancer Research  
 Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,  
 Brazil  
 Tel: +55-11-2704922  
 Fax: +55-11-2707001  
 Email: asimpson@ludwig.org.br  
 This sequence was derived from the FAPESP/LICR Human Cancer Genome  
 Project. This entry can be seen in the following URL:  
 (http://www.ludwig.org.br/bcrlp/seq/gethtml2.pl?fil=QV3&c2=QV3-NN0198-  
 111100-373-b07&c3=2000-11-11&t4=1)  
 Seq primer: puc 18 forward  
 High quality sequence stop: 493.  
 Location/Qualifiers  
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 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /dev\_stage="Adult"  
 /clone\_lib="NN0198"  
 /note="Organ: nervous normal; Vector: puc18; Site 1: SmaI;  
 Site 2: SmaI; A mini-library was made by cloning products  
 derived from ORESTES PCR (U.S. Letters Patent application  
 No. 196,716 - Ludwig Institute for Cancer Research)  
 profiles into the pUC 18 vector. Reverse transcription of  
 tissue mRNA and cDNA amplification were performed under  
 low stringency conditions."

ORIGIN  
 Query Match 3.5%; Score 198; DB 10; Length 493;  
 Best Local Similarity 100.0%; Pred. No. 2.7e-80;  
 Matches 198; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAAGCCATGCGCCCTGGAAGTGAAGTGAAGTCTCTCTCCACCTCTCAATGTTGGCAGT 60  
 DB 278 ATGAAGCCATGCGCCCTGGAAGTGAAGTGAAGTCTCTCTCCACCTCTCAATGTTGGCAGT 219  
 QY 61 GGCTCTCCACTTTTCTCAACCCGAGCCAGACCCCGCTGTCTCCAGAGAGAGCGGCTATT 120  
 DB 218 GGCTCTCCACTTTTCTCAACCCGAGCCAGACCCCGCTGTCTCCAGAGAGAGCGGCTATT 159  
 QY 121 GTCAATTCGAGAGAGAGCCCGCGAGAGGTTTCAATCACTGTGTGTGATGAGAGAGACA 180  
 DB 158 GTCAATTCGAGAGAGAGCCCGCGAGAGGTTTCAATCACTGTGTGTGATGAGAGAGACA 99  
 QY 181 GGAACATTTACTTGGGG 198

Db 98 GGACACATTACTGGGG 81

RESULT 11  
BF312056/c 924 bp mRNA linear EST 21-NOV-2000  
LOCUS 601897930F1 NIH\_MGC\_19 Homo sapiens cDNA clone IMAGE:4127359 5',  
DEFINITION mRNA sequence.  
ACCESSION BF312056  
VERSION BF312056  
KEYWORDS BF312056.1 GI:11259847  
SOURCE EST.  
ORGANISM Homo sapiens (human)  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
REFERENCE NIH-MGC http://mgs.nci.nih.gov/  
1 (bases 1 to 924)  
TITLE National Institutes of Health, Mammalian Gene Collection (MGC)  
JOURNAL Unpublished (1999)  
COMMENT Contact: Robert Strausberg, Ph.D.  
Email: cgabs-remail.nih.gov  
Tissue Procurement: ATCC  
cDNA Library Preparation: Ling Hong/Rubin Laboratory  
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINTL)  
DNA Sequencing by: Incyte Genomics, Inc.  
Clone distribution: MGC clone distribution information can be  
found through the I.M.A.G.E. Consortium/LINTL at: Image.lint.gov  
Plate: L10M1018 row: K column: 08  
High quality sequence stop: 657.  
Location/Qualifiers

## FEATURES

source

1..924  
/organism="Homo sapiens"  
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/clone="IMAGE:4127359"  
/tissue\_type="neuroblastoma"  
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/clone\_lib="NIH MGC 19"  
/note="Organ: brain; Vector: pOT87; Site 1: XhoI; Site 2:  
EcoRI; cDNA made by oligo-dT priming. Directionally  
cloned into EcoRI/XhoI sites using the following 5'  
adaptor: GGACAGAG(G). Library constructed by Ling Hong  
in the laboratory of Gerald M. Rubin (University of  
California, Berkeley) using ZAP-cDNA synthesis kit  
(Stratagene) and Superscript II RT (Life Technologies).  
Note: this is a NIH\_MGC library."

## ORIGIN

Query Match 3.1%; Score 176; DB 10; Length 924;  
Best Local Similarity 100.0%; Pred. No. 5.7e-70;  
Matches 176; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 3075 GGCCAAGTCCACAGAGACCTGGTCTTCAGTATGGAAGACCCCACTGCGGAT 3134  
DB 331 GGCCAAGTCCACAGAGACCTGGTCTTCAGTATGGAAGACCCCACTGCGGAT 272  
QY 3135 TGAGCCAGATGAGCATGTCAGTGAACAACCCATGCGGTATGGGGACCACT 3194  
DB 271 TGAGCCAGATGAGCATGTCAGTGAACAACCCATGCGGTATGGGGACCACT 212  
QY 3195 GGACCTCATACAGAACCCCGATCGGTGCAACATGAGGGAGAGAGACATCA 3250  
DB 211 GGACCTCATACAGAACCCCGATCGGTGCAACATGAGGGAGAGAGACATCA 156

RESULT 12  
AA077496 242 bp mRNA linear EST 24-SEP-1999  
LOCUS 7818311 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA  
DEFINITION clone 7818311, mRNA sequence.  
ACCESSION AA077496  
VERSION AA077496.1 GI:1836570

KEYWORDS EST.  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
REFERENCE 1 (bases 1 to 242)  
AUTHORS Touchman, J.W., Bouffard, G.G., Weintraub, L.A., Idol, J.R., Wang, L.,  
Robbins, C.M., Nussbaum, J.C., Lovett, M., and Green, E.D.  
2006 expressed-sequence tags derived from human chromosome  
7-enriched cDNA libraries  
JOURNAL Genome Res. 7 (3), 281-292 (1997)  
MEDLINE 9728905  
PUBMED 9074931  
COMMENT Contact: Eric D. Green  
Genome Technology Branch  
National Human Genome Research Institute/NIH  
49 Convent Dr., MSC4431, Building 49, Room 2A08, Bethesda, MD 20892  
Tel: 3014020201  
Fax: 3014024735  
Email: egreen@nhgri.nih.gov  
Plate: 18 row: G column: 11  
Seq primer: -21M13 (AB1).  
Location/Qualifiers

## FEATURES

source

1..242  
/organism="Homo sapiens"  
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/clone="7818311"  
/sex="female and male mixture"  
/tissue\_type="brain"  
/dev\_stage="pool of 9 week and 12 week"  
/lab\_host="E. coli strain DH5 alpha"  
/clone\_lib="Chromosome 7 Fetal Brain cDNA library"  
/note="Organ: brain; Vector: PAMPI0; cDNA was generated  
from cytoplasmic RNA using a mixture of random DNA  
hexamers and oligo(dT). From this pool of cDNA, human  
chromosome 7-enriched cDNA was isolated by direct cDNA  
selection using chromosome 7 genomic DNA (cosmids). The  
resulting direct-selected cDNA was cloned into a plasmid  
vector using a non-directional uracil DNA glycosylase  
(UDG)-mediated cloning strategy."

## ORIGIN

Query Match 2.7%; Score 156; DB 9; Length 242;  
Best Local Similarity 100.0%; Pred. No. 7.4e-61;  
Matches 156; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 2720 GTTACATCCCTGCAGACAGATCGTGTGTGATGGGGAGAGCCAGCCAGCAGCATG 2779  
DB 87 GTTACATCCCTGCAGACAGATCGTGTGTGATGGGGAGAGCCAGCCAGCAGCATG 146  
QY 2780 CAGGCTTGTTGAGATCTGCGTGTGTGTGTCGCGCTGAATTATGAGCCCGGTCTTAC 2839  
DB 147 CAGGCTTGTTGAGATCTGCGTGTGTGTGTCGCGCTGAATTATGAGCCCGGTCTTAC 206  
QY 2840 AGCTCTATTACTGATGACACTGACTCTCTCAGATC 2875  
DB 207 AGCTCTATTACTGATGACACTGACTCTCTCAGATC 242

RESULT 13  
BG216679 789 bp mRNA linear EST 21-APR-2001  
LOCUS R8236373 Albersys RAGE Library Homo sapiens cDNA, mRNA sequence.  
DEFINITION BG216679  
ACCESSION BG216679  
VERSION BG216679.1 GI:13742700  
KEYWORDS EST.  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
REFERENCE 1 (bases 1 to 789)  
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R.,



hexamers and oligo(dT). From this pool of cDNA, human chromosome 7-enriched cDNA was isolated by direct cDNA selection using chromosome 7 genomic DNA (cosmids). The resulting direct-selected cDNA was cloned into a plasmid vector using a non-directional uracil DNA glycosylase (UDG)-mediated cloning strategy."

## ORIGIN

```
Query Match      2.1%; Score 118; DB 9; Length 302;
Best Local Similarity 99.1%; Pred. No. 3.9e-43;
Matches 218; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1725 GCTGCTGCTGCTGAGAGTCAATGTCCTGGAGCTGTCACTGGCGTCACTGCACTT 1784
    |||
Db 83 GCTGCTGCTGCTGAGAGTCAATGTCCTGGAGCTGTCACTGGCGTCACTGCACTT 142

QY 1785 TGAAGACCTGTCAAGATGATGGGTGCTGCTGGGCAATCAATCACTGCTACTCCCC 1844
    |||
Db 143 TGAAGACCTGTCAAGATGATGGGTGCTGCTGGGCAATCAATCACTGCTACTCCCC 202

QY 1845 TGCAGCCCAAGAGAGTGCCTCGATCATCAAGAAATGGGACCAACCATGTCTACAGCT 1904
    |||
Db 203 TGCAGCCCAAGAGAGTGCCTCGATCATCAAGAAATGGGACCAACCATGTCTACAGCT 262

QY 1905 TCAGCTCAATCAAGAGAGCCGGCATGACCTTCGCCAGC 1944
    |||
Db 263 TCAGCTCAATCAAGAGAGCCGGCATGACCTTCGCCAGC 302
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Search completed: February 20, 2004, 09:34:27  
Job time : 8811 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using SW model

Run on: February 18, 2004, 16:32:38 ; Search time 27 Seconds

(without alignments)  
2971.162 Million cell updates/sec

Title: US-09-964-956-13

Sequence score: 9990  
1 MKAPMWTCLLSHLLWGM.....OKLAKLEQVITLMSLSNKK 1896

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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1: /cgn2\_6/ptodata/1/1aa/5A.COMB.pep:\*  
2: /cgn2\_6/ptodata/1/1aa/5B.COMB.pep:\*  
3: /cgn2\_6/ptodata/1/1aa/6A.COMB.pep:\*  
4: /cgn2\_6/ptodata/1/1aa/6B.COMB.pep:\*  
5: /cgn2\_6/ptodata/1/1aa/PCTUS.COMB.pep:\*  
6: /cgn2\_6/ptodata/1/1aa/backfile1.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1349	13.5	1568	3	US-09-181-706-2
2	1349	13.5	1568	3	US-09-458-791-2
3	1349	13.5	1568	4	US-09-459-062-2
4	1349	13.5	1568	4	US-09-459-065-2
5	538.5	5.4	1404	4	US-09-345-473E-24
6	308	3.1	607	4	US-08-556-422A-4
7	263	2.6	888	4	US-09-077-940A-4
8	244.5	2.4	887	4	US-09-077-940A-2
9	227	2.3	724	1	US-08-121-713D-62
10	227	2.3	724	1	US-08-833-268-62
11	227	2.3	724	2	US-09-060-692-62
12	227	2.3	724	2	US-08-833-391-62
13	227	2.3	724	4	US-09-060-610-62
14	227	2.3	724	5	PCT-US94-10151A-62
15	207	2.1	730	1	US-08-121-713D-58
16	207	2.1	730	1	US-08-835-268-58
17	207	2.1	730	2	US-09-060-692-58
18	207	2.1	730	3	US-08-833-391-58
19	207	2.1	730	4	US-09-060-610-58
20	207	2.1	730	5	PCT-US94-10151A-58
21	200	2.0	771	1	US-08-121-713D-54
22	200	2.0	771	1	US-08-835-268-54
23	200	2.0	771	1	US-09-060-692-54
24	200	2.0	771	3	US-08-833-391-54
25	200	2.0	771	4	US-09-060-610-54
26	200	2.0	771	5	PCT-US94-10151A-54
27	196.5	2.0	655	4	US-08-556-422A-3

28	186	1.9	712	1	US-08-121-713D-64	Sequence 64, Appl
29	186	1.9	712	1	US-08-835-268-64	Sequence 64, Appl
30	186	1.9	712	2	US-09-060-692-64	Sequence 64, Appl
31	186	1.9	712	3	US-08-833-391-64	Sequence 64, Appl
32	186	1.9	712	4	US-09-060-610-64	Sequence 64, Appl
33	186	1.9	712	5	PCT-US94-10151A-64	Sequence 64, Appl
34	185	1.9	650	1	US-08-121-713D-60	Sequence 60, Appl
35	185	1.9	650	1	US-08-835-268-60	Sequence 60, Appl
36	185	1.9	650	2	US-09-060-692-60	Sequence 60, Appl
37	185	1.9	650	3	US-08-833-391-60	Sequence 60, Appl
38	185	1.9	650	4	US-09-060-610-60	Sequence 60, Appl
39	185	1.9	650	5	PCT-US94-10151A-60	Sequence 60, Appl
40	178	1.8	930	4	US-09-254-594-6	Sequence 6, Appl
41	177.5	1.8	929	4	US-09-254-594-3	Sequence 3, Appl
42	174.5	1.7	862	4	US-08-556-422A-2	Sequence 2, Appl
43	147	1.5	666	3	US-09-240-410-2	Sequence 2, Appl
44	146.5	1.5	606	3	US-09-041-236-4	Sequence 4, Appl
45	146.5	1.5	606	4	US-09-771-467C-4	Sequence 4, Appl

## ALIGNMENTS

RESULT 1  
US-09-181-706-2  
Sequence 2, Application US/09181706  
Patent No. 6110068  
GENERAL INFORMATION:  
APPLICANT: Melanie K. Spriggs, Michael R. Comeau,  
APPLICANT: Robert F. Dubose, Richard S. Johnson  
TITLE OF INVENTION: VIRAL ENCODED SEMAPHORIN PROTEIN  
TITLE OF INVENTION: RECEPTOR DNA AND POLYPEPTIDES  
NUMBER OF SEQUENCES: 10  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Janis C. Henry  
STREET: 51 University St.  
CITY: Seattle  
STATE: WA  
COUNTRY: US  
ZIP: 98101  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/181,706  
FILING DATE: October 28, 1998  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/958,598 (converted to a  
APPLICATION NUMBER: Provisional, see below)  
FILING DATE: October 28, 1997  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: --to be assigned-- (US89 08/958,598  
APPLICATION NUMBER: conversion to Provisional application)  
FILING DATE: October 26, 1998  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Henry, Janis C  
REGISTRATION NUMBER: 34,347  
REFERENCE/DOCKET NUMBER: 2631-A  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (206)470-4189  
TELEFAX: (206)233-0644  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1568 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-09-181-706-2

Query Match 13.5%; Score 1349; DB 3; Length 1568;  
 Best Local Similarity 24.8%; Pred. No. 9.6e-112; Indels 576; Gaps 74;  
 Matches 480; Conservative 291; Mismatches 591;

Db 72 YKSSDILKVIYTHETGPEDEDFKCYPPRIYOTCNEPLITT-----NNVAKMLLDYK 123  
 70 YSLHSHSRILYRDQAG-----NCTEPVSLAPPARPRPSSFSK-LILPYR 113  
 124 ENR-----LIACSLVGTGCKLRLDLPLGSEPHKHEHYSV-----NNGSGFVG 172  
 114 EGAAGLGLLTGTFDGRACEVPLGNL-----SRNSLRNGTEVWSCHQGSLAGV 165  
 173 IVSYSLNDLKLPIA-----TAVDGKPEYPTISRKLTGNS 208  
 166 VYR-AGRNRMWYLAVALTYVLPEPETASRCNPASDHDITAIKDTGSLAQELGRLEK 224  
 209 EADGMFAVPEDEYV-ASMKIIPSDTFTITPDITVYVGFSSGNFYFILTQPEWSP 267  
 225 LCEGAGSLHFDADFLMNGSIYFP-----YYPNTYSG-----AATGMSMARIA 268  
 268 GSTTGEQYVYTKLVLCKEDTAFNSVYVPIGCSGVGE-YRLLOAYLSKAGAVLGRTL 326  
 269 GST-----EVLFGG-QASLDGCHGHPDGRILLSSIVEA-----302  
 327 GVHPDDLLFTVFS--KGQKRMKSLDESALCITLKQINDRIKERLQSCYRGEGLTDLA 384  
 303 -----LDVMAGVFAAAGEGERSPTTTALCLFRMSEIQARAK-----VS 344  
 385 W-LKVDIPCSSALLITIDNFCGLDMNAPLGVSDMVGIPVETEDRDMTVIAYYKKN 443  
 345 WDFPTEASHCEG-----DQF-ERVQPIASSTLIHSDLSVGTVMNR 387  
 444 SLAVGTYSKGLKIRVDGPRGNALQYETVOV-----DPGYLRDMASKD 490  
 388 TLFETGTDGQLLKAIL-----GENLTSNCPVEIYEIKETPVFYKLVDPDV-----K 435  
 491 HEOLYKSEBCLTVPVESCGOYSCGCLSGADPHGCMCVLAHTCTRKERCERKERR 550  
 436 NIYITLTGKEVRRIRVANCKMKHSCSCLTATPHGCMCHSLORCTFGQDC-----487  
 551 FASEMKQCVRLTVHNNISVSQYVNLVLETVNPELSAGVNTCEDLSXMDGLVGNQI 610  
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 552 ENR-----TCTCSI-----PTATYKDVSVVWVNFSGS-----KMLSD 585  
 788 HFNINPQONKVLTKYCGAMESCGCLKADPFCAGWCGQPGQCTLRQHCPAGESSOMLE 847  
 586 RNFNPN-----CSLKE-CPACVET-----GCAMCKSARCC-----615  
 848 LSGAASKCTNPRITIIIPYTGREGGTVITRGENLGLFPDIAHNVAVAGVBCSLVDG 907  
 616 -----IHPTA-----CDP---S 625  
 908 YIPAEQIVCEM-----GEAKPSQAHGVEICVAVCRPEFARSSQLYFMTLLTSLDKP 961  
 626 DVERHQEQPVAVEKTSGGGRPKENKG-----NRNQALQVRY-----IKSIEP 669  
 962 SSGPMSSGGTQVTTTGTNNLAGSNV-VWFGKQPC-----LFHRSPEYIYCNTSSDEV 1014  
 670 QKYSTLQKSNVIVTGANFTRASNTIMILKGTSTCDKDVIOVSHVLTNDTHMKFSLPSSRK- 728

QY 1015 LEMK-VSVQVDRAKIHQDLVQYVEDPTIVRIEPEWMSIVSGNTPIAVGTLLDILQNPQI 1073  
 Db 729 -EMKDVCIQFDGNCSSVGLSLYIALPHCSLIFPATWISGOMITMMGRNFVIDN--L 785  
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 Db 786 IISHELKNINSECVATYCGFLAPSL-----KSKRTVYTKLRVOD 830  
 QY 1134 T-----NFTYVNPVFEAFGSPGILKLPQTPIILKGNLLPVAAGNVKLVTVLVEEK 1188  
 Db 831 TYLDGDTIQRREDPFTGYR-----VESEVDTELEVKIQ-----KENDNFENISK 875  
 QY 1189 PCTVTV---SDVQLCEPNNLI-----GRHKWAPVCMGEXS 1222  
 Db 876 DIEITLTFHGENQNLNCSFENITRMDLTTLCKIKTASTIANSKRVKRGLE-- 933  
 QY 1223 PGWVYIAPDS-PLSLPAVSIANAGLLIFIVAVLIAYKESRESDTLRLQWQMDNL 1281  
 Db 934 ---LYVEGESVSPWYFVLVLPV---LVIVIPAAVGTIRKSKXK-LSRKQSQ-QLBELL 984  
 QY 1282 ESRVALCEKAPAEIQTDIHELTSDLQAG--LPIIDRYTTRVLPF--GIEDHPLRLD 1338  
 Db 985 ESELKEIRIDGFALQMDKLDV---VDSFGTVPLDYGHFALRFFPESGGFTLFTEDM 1041  
 QY 1339 EVPGYRQERVEKGLKLPF--OLINNKVFLSFIRTLSESQSFMSRDRGNVASLMTVLQS 1396  
 Db 1042 ---HNRANDNKNESLTHLDALICNKSFLVYVHTLEKQNPVADRLCLFASFLTALQT 1097  
 QY 1397 KLEIATDVILKQILLIDIKNLESKNHFKLLRRTSVAEKKLTWFTLLIKFLEKCGE 1456  
 Db 1098 KLVYLTSLIEVLTPLIMEQC--SNMQPLMLRRRESVEKLTLMMSVCLSGFLAEYGE 1155  
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 Db 1216 VGRNISVANVLDGDTIQAKKEKIFQAFLSKNGSPYGLQINELGLEIOMGTROKELIDISS 1275  
 QY 1571 TTKINDMRKNTLAAHQVDDGSSVVALVSKQVTANAVNSVRSATSKYENMIRYGS 1630  
 Db 1276 SVILEGTYKLTIGHVEISNGSTIKV-----FKKINFTSD 1312  
 QY 1631 PDLRSRPTMTIPDLESGYKMHVKNHEHQDQEGDSK--WVSEIYLRLLATKGTL 1688  
 Db 1313 VEYSDDHCHLIPDSEA---FQVQGRKH-----RGKHFKYKEMYLFTLLSTKVAI 1361  
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 Db 1362 HSYLEKLFERSIMSLRN--SRAPFAIKYFPDFLDADLENKKITDPDVHIIKTNLSPLRFW 1419  
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 Db 1540 EREGRGLEAOKQDLNKKV 1557

RESULT 2  
 US-09-458-791-2  
 ; Sequence 2, Application US/09458791  
 ; Patent No. 6174689  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Spriggs, Melanie  
 ; TITLE OF INVENTION: VIBRAL ENCODED SEWAPHORIN PROTEIN  
 ; RECEPTOR DNA AND POLYPEPTIDES



NUMBER OF SEQUENCES: 10  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Janis C. Henry  
 STREET: 51 University St.  
 CITY: Seattle  
 STATE: WA  
 COUNTRY: US  
 ZIP: 98101  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: MS-DOS/Windows 95  
 SOFTWARE: Word for Windows 95, 7.0a  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/09/458,791  
 FILING DATE: 10-Dec-1999  
 CLASSIFICATION: <Unknown>  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: 08/958,598  
 FILING DATE: 28-OCT-1997  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Henry, Janis C  
 REGISTRATION NUMBER: 34,347  
 REFERENCE/DOCKET NUMBER: 2631  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (206)470-4189  
 TELEFAX: (206)233-0644  
 INFORMATION FOR SEQ ID NO: 2:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 1569 amino acids  
 TYPE: amino acid  
 TOPOLOGY: linear  
 MOLECULE TYPE: protein  
 SEQUENCE DESCRIPTION: SEQ ID NO: 2:  
 US-09-458-791-2  
 Query Match 13.5%; Score 1349; DB 3; Length 1568;  
 Best Local Similarity 24.8%; Pred. No. 9,66-112;  
 Matches 480; Conservative 291; Mismatches 591; Indels 576; Gaps 74;  
 QY 72 YKLSIDLKLVTHETGPEEDNPKCYPRIVQYCNBPLTTT-----NNYKMLLDYK 123  
 DB 70 YLEHSLSLVYDQNG-----NCTEPVSLAPPARPPSSSK-LLEHYR 113  
 QY 124 ENR-----LIACGLSYGICLKLEDFKGLGEYHKKENHLSGV-----NESSVGV 172  
 DB 114 EANAAGLGGILITGWTFTDRGACEVRPLGNL-----SRNSLRNGTEVAVSCHPQGSTAGV 165  
 QY 173 IYSYSLDDKLFIA-----TAVDGKPEYFPITISSRKLTQNS 208  
 DB 166 VVR-AGRNRRWYLAVAATYVLRPEPTASRCNPASDHDITALKOTEGRSIATQELGLX 224  
 QY 209 EADGNFAYVHDEYV-ASMIKIPSDFTFTIIPFDIYYVGSNGFVYFLILQPMVSP 267  
 DB 225 LLEGAGSLHFVAFMNGSIYFP-----YYPNYTSG-----AATGMPMAMIA 268  
 QY 268 GSTTKEQVYTSKLVLCXEDTAFNSTVEVPICSGSGVE-YRLQAAVLSKAGAVLGRTL 326  
 DB 269 QST-----EVLFGQ--QASLDGCHPDGRRLSLSSSIVEA----- 302  
 QY 327 GYHPDDLLFTVFS--KQGRKRKSLDESALCIFILOKINDRIKERLOSCTRGSGTDLA 384  
 DB 303 -----LDVWAGVFAAAGGQERSPTTALCLTFMSEIOARAK-----VS 344  
 QY 385 W-LKVVDDICSSALLIIDNFCGLDMKNAPLGVSDMVRGIFVTEPDRDRTSYIAVYKQH 443  
 DB 345 WDFKTLSECKSGS-----DQF-----ERVQPIASSTLIHSDLTSYIGVYVNR 387  
 QY 444 STAFVGTSGKGLKIRIVDGPGRNALQYETVQV-----DQGVLRDMAFSKD 490  
 DB 388 TVLFLATGQGLLKVIL-----GENLTNSCPVAVYEIKETPVFYKLVDPDV-----K 435  
 QY 491 HEGLIYMSRQLTRVAVESGGVQVQSGCELGSDPHICGVCVLANCTRKREKERSKEPRR 550

DB 436 NIYIYLLAKGEVRIKRVANCKNKKSCSECLTATDPHCGCHSLQRCCTFGDC----- 487  
 QY 551 FASEMKQCVRLVYHPNNISVQYNTLVLETYNVPELSGVNCTPEBLSBMGLVYVNGQI 610  
 DB 488 -----VHSEMLE-----NWDLISSG----- 502  
 QY 611 QCSPAKEVPRITITENGDDHVVQLKSKETGMPASTSPFYVNSVANSCL-SCVESP 669  
 DB 503 -----AKCQPKL-----QIRSSKEKTYTMVGSF-----SPRSKGVKRVSDS 542  
 QY 670 YRCHMCKYRHVCTHDEKTCSPQBGVYKLPEDCPQLRVDKIIVPEVIVPITLKAQLPQ 729  
 DB 543 -----RELCL-----ONKSQ 551  
 QY 730 PQSGRGVCEIINIQSGEQRVAPLRFNSSSVOCQNTSYEGEWEINLPLELTVVNR--G 787  
 DB 552 ENR-----TCTCSI-----PTRAITYDVSVVNYMFSGS-----WNLSLD 585  
 QY 788 HFNIDNPAONKXHLVYXGAMRSCGLCLADPDPAFCWCGQGGCTLRQHCPAQSSQMLE 847  
 DB 586 RNFYFTN-----CSLKE-CPACVET-----GCAMCKSARRC----- 615  
 QY 848 LSGAKSKCTNPRTEILPYTGPEEGTKYTINGENGLFRODASHVYKAVGCSPLVDG 907  
 DB 616 -----LHPFLA-----CDP---S 625  
 QY 908 YIPAEQIVCEM-----GEAKPSOHAFVEICVAVCRPEFMARSSGLYYFMTLTSDLKP 961  
 DB 626 DYRRNQEQCPVAVEKTSGGGRPKNG-----NRTNALQGVY-----IKSIEP 669  
 QY 962 SRGPMGGTQYITTGNNLAAGNV-VVMFGKQC-----LPHRBSPTIYCNSTSSDGV 1014  
 DB 670 QKVSTLGKSNVIVTGANFTASNTIMLKSTGCDKQVIOVSHVLDTHMKTSLSPSRK 728  
 QY 1015 LEMK-VSYQVDBRAKIQDLYFOYVEDPTIVRIEPMISVSGNTPIAVWGTDLIQPQI 1073  
 DB 729 -EMKDVCIQPDGNGCSVSLSYIALPHCSLIPPAATWISGQNTIMMGKRFVIDN--L 785  
 QY 1074 RAVGGKEHINTEVLANIEMTQAPALALGPHQSDLIRPREPFILDNQSLILNK 1133  
 DB 786 IISHELKGNINVEYCAVYCGFLAPSL-----KSKRVNTVYVKLRVOD 830  
 QY 1134 T-----NFTYPRVPEAFQPSGILEKPGTPIILKXKILIPVAGNVANTVYVGER 1188  
 DB 831 TYVDCGLQYREDPRRTGR-----VESVDTELEVAIQ-----KENDNFMSKK 875  
 QY 1189 PCTVTV--SDVOLLCESPVLI-----GRHYMAVGMETS 1222  
 DB 876 DIBITLPHGNGQINCSFENITENODLITLCKIKIKTASTIANSKTVRVLGNLE-- 933  
 QY 1223 PGWYTAIAPDS-PLSLPAIVSIAVAGGLIIFIYAVVLIAYYKRSRESDLTLKRLQMDNL 1281  
 DB 934 ---LYQGESVPSWTWFLVLPY--LVIVIFAAVGRHMSKE--LSKKQSG-QLELL 984  
 QY 1282 ESRVALECKEAFALQTDHETSLDAG-IFPDYRYTYNVALP--GIEHPVLRDL 1338  
 DB 985 ESELKEIRIDGFELQMDKLDV--VDSFGTVFLLYKHFALMTFPPESSGFTHTIEEM 1041  
 QY 1339 EVGQYQERVEKGLKLEA--QLINNVKVFILSPRTLESQSPFMRDRGNVASTIMTVLOS 1396  
 DB 1042 ---HNSDANDKRESLTALDNLCKNSFLVTVVHTLEKQNFVYKRCCLPASLTIALQ 1097  
 QY 1397 KLEAYADVNLKOLLADLIDKXLESKNHPKILRTTESVAERKLTNNMFTFLYKFLKQAGE 1456  
 DB 1098 KLVYLTSLLEVLTRDIMEQC--SNMOPKMLRTTESVVERGLTNMNSVCLSGFLRETVGE 1155  
 QY 1457 PLPSLFCALIQOMEKGPIDAITGEARYSLSEDLILBQOQIDYKTLVYSCV--SPDNANSP 1513  
 DB 1156 PFTLVLTTLNCKNKGGVDVITCKALYTLNEDWLMQVPEFSVYALANVVEKIPENESAD 1215  
 QY 1514 ---EVPKILNCDTITQVKEKILDAIFKQNVCSHRPAAQMDLEWQSGARMILQDEDI 1570

Db 1216 VCRNINSVNVDCTTIGQAKKIFQAFLSKNGSPYGLQNEIGLEOMGTROKELLDIDS 1275  
 Qy 1571 TTKIENDMKRLNTLAIYQVDPDGSVALVSKQVATANAVNNSTVSTASKENMIRYGS 1630  
 Db 1276 SVLEEDGITKNTIGVETISNGSTIKY-----FKCANFTSD 1312  
 Qy 1631 PDSLRSTPMITPDLSEGVMMHLVKNHEHQDQEGDRSK--MYSEIYLTRLATATGTL 1688  
 Db 1313 VEXSDHCHILPDSR-----FQVQCKH-----RGMKFKYKENVLRTLTSTKAI 1361  
 Qy 1689 QKAVDDLEFETITSTARGSLPLATKTMFDPLDEQDRKGIHDHYRTTKNSCLPLRFV 1748  
 Db 1362 HSVTEKLFRTSWLPLN--SAPPAIKYFPFDLQAKENKKTIDPVVHMKTNLSPLRFV 1419  
 Qy 1749 VNMKNFQVFDIHKNSITDACLVAQTFMDCSTSEHRLGKSPSKLLYAKDIPSYK 1808  
 Db 1420 VNILKNFQVFDIKPHIDGLSLVAQAFMDAFSLTEQGLKKAFTKLLYAKDIPYK 1479  
 Qy 1809 NMYERTYSDIGKMPALSDQMAAYLAEGSRMNMENYMSALSEIFSVGKYSSEITGLPL 1868  
 Db 1480 EEVASYKALRDPPLSSSEMEEFLOESKHEHEEVALTEIYKTVYFDEILNKL 1539  
 Qy 1869 DHD---DQCKQKLAAYKL 1883  
 Db 1540 EREKGLEAQKOLLHVKV 1557

## RESULT 3

US-09-459-066-2  
 ; Sequence 2, Application US/09459066  
 ; Patent No. 6187909

## GENERAL INFORMATION:

APPLICANT: Spriggs, Melanie  
 TITLE OF INVENTION: VIRAL ENCODED SEMAPHORIN PROTEIN  
 TITLE OF INVENTION: RECEPTOR DNA AND POLYPEPTIDES  
 NUMBER OF SEQUENCES: 10  
 CORRESPONDENCE ADDRESS:

ADDRESSEE: Janis C. Henry  
 STREET: 51 University St.  
 CITY: Seattle

STATE: WA  
 COUNTRY: US  
 ZIP: 98101

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: MS-DOS/Windows 95  
 SOFTWARE: Word for Windows 95, 7.0a  
 CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/459,066  
 FILING DATE:

## CLASSIFICATION:

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/958,598  
 FILING DATE:

## ATTORNEY/AGENT INFORMATION:

NAME: Henry, Janis C  
 REGISTRATION NUMBER: 34,347  
 REFERENCE/DOCKET NUMBER: 2631

## TELECOMMUNICATION INFORMATION:

TELEPHONE: (206)470-4189  
 TELEFAX: (206)233-0644  
 INFORMATION FOR SEQ ID NO: 2:

## SEQUENCE CHARACTERISTICS:

LENGTH: 1568 amino acids  
 TYPE: amino acid  
 TOPOLOGY: linear

## MOLECULE TYPE: protein

US-09-459-066-2

Query Match 13.5%; Score 1349; DB 3; Length 1568;  
 Best Local Similarity 24.8%; Pred. No. 9,6e-112;  
 Matches 480; Conservative 291; Mismatches 591; Indels 576; Gaps 74;

Qy 72 YKLSDDLKVLVTHETGPEEDNPKCYPRIVQTCNEPLTT-----NNYKMLLDYK 123  
 Db 70 YSLEHSLRLYDQAG-----NCTEPVSLAPAPRPGSSFSK-LLLPYR 113  
 Qy 124 ENR-----LIACGLYOGICKLRLLEDLPKAGEPYKKEHYLSGV-----NESGVFVG 172  
 Db 114 BGAAGLGLLIGWTFEDRACCEVRPLGTL-----SRNLSRGTVEVSCHPQGSTAGV 165  
 Qy 173 IYSYENLDKXLFIA-----TADGKEVFPITSSPKLKN 208  
 Db 166 VTR-AGRNRMVLAALAAVYVLPPEPTLRCPNAPASDHDTALALDKTGRSLATQELRLK 224  
 Qy 209 EADGMFAVYFHDPEV-ASMKIPSDPTFTIIPDPFIYYVYGFSGNPFYFTLQEPVNSPP 267  
 Db 225 LCEGAGSLHFVDAFLMNGSIYFP-----YPPYNTSG-----AATGWSMARIA 268  
 Qy 268 GSTTKEQVYTSKLVRLCKEDTAFNSTVEVPIGCRSGVE-YRLQAAVLSKAGAVLGRTL 326  
 Db 269 QST-----EVLFGQ--QASLDQGHDPGRRLLSSLYEA----- 302  
 Qy 327 GVHPDDLLFTVFS--KQQRKMSLDESALCIFLQINDRIKERLOSCYRGSGTDLA 384  
 Db 303 -----LDVWAGVFSAAAGEGQERRSPPTTALCLPRMSEIQRAKR-----VS 344  
 Qy 385 W-LKVKNDIPCSALLTIDNFCGLDMNAFLGVSDMVGIPVFETEDRDMTSLAVYYKNH 443  
 Db 345 WDKPTAESHCXG-----DQF-----ERVPIASTLIHSDLSISVYGVYVNR 387  
 Qy 444 SLAFVGTSGKLIKIRIVDPRGNALQYETVQV-----DPGYLRDMAFSKD 490  
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 Qy 491 HQGLYMSRDLTRPVESCGOYOSCGECGSGPHGWCYLAHTYCTRKESCEKSEPR 550  
 Db 436 NIYIYLTAKVRRIRVANCNKHSQSCSLTATDPHCWGCHSLQRCFPQDQ----- 487  
 Qy 551 FASEKQCVRLTVHPNNISVSQVNLVLEFYVNPBELSAGVNCFTFEDLSEMDGLVGNQI 610  
 Db 488 -----VHSENL-----NMLDISG----- 502  
 Qy 611 CCYSPAKAVPRITITENDHHVYOLLSKETGTMTFASTSVFVNGSVNSCL-SCVESP 669  
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 Qy 730 POSGQGYECILNIGSEORVPLAFNSSVYOCONTSYSGEIMNLPEVLTVMNR-G 787  
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 Qy 962 SRGPVSGTQVYITGTNLNAGSNV-VVWFGKQPC-----LHRRBSYIYICNTSSDEV 1014  
 Db 670 QKVTSLGKSNVLTGANFTASNTIMLKGTSTDQKVOYQVSHVLTNDTHMKFSLPSRK- 728  
 Qy 1015 LEMK-VSVQVDPKAKHQDLVFGYVEDPITVAIEPEMSVSGNTIAYWGHLDLIONPOI 1073  
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QY 1074 RAKGGEKHINICENVINATEMTQAPALALGPDHGDILTERPEEFILIDNVOSLLINK 1133
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QY 1134 T-----NFTYYPNVEAFGPGSILKPKGTPIILKGKLIIPVAGNVKLVYLVGK 1188
DB 831 TYLDCGLQVREDPRFTGYR---VESEVDTLEVKIQ-----KENDNENISK 875
QY 1189 PCVTV---SDVOLLCESEPLI-----GRHKMARVAGMEYS 1222
DB 876 DITTLFHGNGQLNSFENITNODLTILCKIKGKASTANSKKVRVYKLGLE-- 933
QY 1223 PGWYIAPDS-PLSLPAISIAVAGLLIIFVAVLIARKRSBESDLTLKQLQOMQNL 1281
DB 934 ---LYVEQESVPSFTWFLIYLPV---LIVIVIFAAGVTRHKSKE--LSRKOSQ-QLELD 984
QY 1282 ESRVALDECKAFALQTDIHELSDSDGAG-IFELDRYTRYMKVLP--GIEDHPVLRDL 1338
DB 985 ESELREKIRGFALQMDKLDV---VDSFTVFFLDYKHALTFPPEGGFHTIETDM 1041
QY 1339 EVDPGRQERYEKIKLFA--QLINNKVFLLSFIRLESQSFSGMRDGNVAGIIMTVLOS 1396
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QY 1457 PLFSLPAIKQOMKGPIDAITGEARYLSSEDKLIRQOIKYTLVLCV---SPDNANSP 1513
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QY 1514 ---EVPYKILNCDITTYVKEKILDAIRNVPCHSRPAAMDLEMKGSGARMILODEDI 1570
DB 1216 VCRNISVNVLDCTITGAKKIKIQAFLSKXGSPGQOLNEIGLEQVTKQKELLDIDS 1275
QY 1571 TTKTENMKRLNTLAHYOVDPDGSYVALVSKVTAYNANVSIVRTSASKYEMMIRYTG 1630
DB 1276 SVILEDGTTKANTGHEIENSGTIRV-----FKKIANTPSD 1312
QY 1631 PDLRSRTPMITPDLESQVKMHLVKNHEGDKQEGRSK--WSEIYITRLIATKGL 1688
DB 1313 VEYSDDHCHILIPDSEA---FQDVQGRH-----RGRKFKVKXMYTLKLLSTVAL 1361
QY 1689 QKPVDDLFEITFSTAHGSAIPLAIKMPFLDEQADKGIHPVHATWKSNCPLRFM 1748
DB 1362 HSVLEKIFRSIWSLPN--SRAPFAIKTFPDLQAKENKITDPDVHIMKINSPLRFM 1419
QY 1749 VMINKPQFVPIHKNSTIDACLSVAQTENDSCSTSEHRLGKQSPNKLIIYADIPSYK 1808
DB 1420 VNILKNPQFVFDIKTPIHDICLSVIAQAFMDAFSLTEQOLGKEAFNKLIIYADIPSYK 1479
QY 1809 NMVEYIYDIGKPAISIDQMNAYIABESRMNNEFNMSALSEISFVGYKSEIIGPL 1868
DB 1480 EEVKSYAIAIDLPLSSSEMEEFITQESKGENEFNEVALTELIIKYIVYPIEILNKL 1539
QY 1869 DHD---DOCGKQCLAYKL 1883
DB 1540 EREGLERAKQKOLLHVXV 1557

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RESULT 4
US-09-459-065-2
; Sequence 2, Application US/09459065
; Patent No. 6562949
; GENERAL INFORMATION:
; APPLICANT: Sorligs, Melanie
; TITLE OF INVENTION: VIRAL ENCODED SEMAPHORIN PROTEIN
; TITLE OF INVENTION: RECEPTOR DNA AND POLYPEPTIDES
; NUMBER OF SEQUENCES: 10
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Janis C. Henry
; STREET: 51 University St.

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; CITY: Seattle
; STATE: WA
; COUNTRY: US
; ZIP: 98101
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: MS-DOS/Windows 95
; SOFTWARE: word for Windows 95, 7.0a
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/459,065
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/958,598
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Henry, Janis C
; REGISTRATION NUMBER: 34,347
; REFERENCE/DOCKET NUMBER: 2631
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206)470-4189
; TELEFAX: (206)233-0644
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1568 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-459-065-2
;
; Query Match
; Best Local Similarity 13.5%; Score 1349; DB 4; Length 1568;
; Matches 480; Conservative 291; Mismatches 591; Indels 576; Gaps 74;
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; 72 YKLSDDLKVLVTHGEPEDNPKCYPRPIVQTCNEPLTT-----NNVNMKLLIDYK 123
; DB 70 YSLHSLRLVRDQG-----NCTEVSALAPARPPSSSK-LILPYR 113
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; 124 ENR-----LACSGLYOGICKLRLEDLFKLGEFYHKKHYLSGV---NESGVFQV 172
; DB 114 EBAAGLGGILLGWFFRQAGCVRLGNL-----SRNSLRNGTEVVSCHPOGSTAGV 165
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; 173 IVSYNLDKLFIA-----TANDGKREYPTISRLTQNS 208
; QY : : : : :
; DB 166 VYR-AGRNRRWYLAAYVYIPEPTASRCNPASDHDTALAKDTGRLATQGLGRLK 224
; QY : : : : :
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; DB : : : : :
; DB 225 LCGAGSLHFVAFVAFMNSIYFP-----YYPNNTSG---AATGPMARIA 268
; QY 268 GSTTKEQVTSKLVRLCKEDINAFNSYVEVPIGCSGVY-YLLQAAVLSKGAVALGRLT 326
; DB : : : : :
; DB 269 GST-----EVLFGQ--QASLDGCGHDPGRLLSSSLVEA----- 302
; QY 327 GVHPDDLLFTVES--KQGRKMKSLDEBALCIFILKQINDRIKRLQSCVRGEGTDLDA 384
; DB : : : : :
; DB 303 -----LDVNAVGVFSAAGGCGRRSFTTALCLFMSEIQAAAKA-----VS 344
; QY 385 W-LKVDIPCSSALLTIDNFGCLDMNAPLVGSDMVRGIPVTERDRKTSVIAYVYKNH 443
; DB 345 WDKTASHCKEG-----DQF-----ERVQPIASSTLIHSDLTSVYGVVMNR 387
; QY 444 SLAFVGTSGKUKKIRVDPGRNALQYEVQVY-----DPQVLRDMAFSKD 490
; DB : : : : :
; DB 388 TVFLGTGQQLIKVL-----GENLTNCPVYIYEIKERTPVFYKLVDPVPV-----K 435
; QY 491 HEQLYIMSRQLTRPVESCGQYQSCGCLGSDPHCGKCVLIHNTTRKERGERSKEPRR 550
; DB : : : : :
; DB 436 NIYIYLTAGKEVRIIVANCNKHKSCSECLTATDPCCGCHSLQRTFGDC----- 487
; QY 551 FASEMQCVRLVTHPNNISVSQYNVLLVLETVNPELSAGVACTFEDLSMDGLVVGNOI 610
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 Db 543 -----RELJC-----QNSQ 551  
 Qy 730 POSGQREYECTLNTQSEORVPALRFNSVSSQONTSYSEYENINLLEVLTVVYN-G 787  
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 Qy 1189 PCTVTV-----SDVQLCESPMIL-----GRHVMARVGMEXS 1222  
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 Db 1540 EREGRLEAKOKOLLHYKV 1557  
 RESULT 5  
 US-09-345-473E-24  
 ; Sequence 24, Application US/09345473E  
 ; Patent No. 6558903  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Hodge, Martin  
 ; TITLE OF INVENTION: No. 6558903el Kinases and Uses Thereof  
 ; FILE REFERENCE: 35800/183781  
 ; CURRENT APPLICATION NUMBER: US/09/345,473E  
 ; CURRENT FILING DATE: 1999-06-30  
 ; NUMBER OF SEQ ID NOS: 62  
 ; SOFTWARE: FASTSEQ for Windows Version 4.0  
 ; SEQ ID NO 24  
 ; LENGTH: 1404  
 ; TYPE: PRN  
 ; ORGANISM: Gallus gallus  
 US-09-345-473E-24  
 Query Match 5.4%; Score 538.5; DB 4; Length 1404;  
 Best local similarity 20.3%; Pred. No. 1,4e-38;  
 Matches 349; Conservative 223; Mismatches 548; Indels 599; Gaps 78;  
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 Qy 222 FVAMIKIFSDFITIIPDFD---IYVYGPSSGNFVFTLPQPMVSPGSTKEOVYT 277  
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Cy 502 LTRPVVSCGQYQSGEGLSGDPRHCGWCLANTCTRKESCEKSEKPRFASMKQCVRL 561
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Db 506 FAAGTK-----VMRVNVVGPGR-----HFS-----526
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Db 527 -----TCRCLFARFEGCGWC-GNG-CTRHHC-----AGBWQ-----DSCP-PVLT 567
Cy 862 EIPVTPREGGTKYITRGENTGLEFR-----DIASH-----VKAGVCSPLVD--G 907
Db 568 DFHRSAPLRQGRVTL-----CGMTFHSPPDPFAHSHLPPQYVVAAGHSCVTLDESSES 623
Cy 908 YIF-----AQIYCEMGKAPSOHAGFEVLCVAVCRPEMA-----SSOL--YIF 951
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Db 801 YRPLAKIQGGGGKTEATCEGQSPMWLLCRSPRPI-----EIKVGNLSTLSDG 854
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Cy 1282 ESRVALBEKEAFALQTDIHETSLDLAG--IFPL-----DYR-----1318
Db 1023 EVOY-LPVAASPGIARPHAHFASGADAGGSPVPLRTSGCLDLPELLEBYKDL 1081
Cy 1319 -----TYMKRYL-----FGIDHVLVDL-----EYGYKREYR- 1348
Db 1082 IPEBRLITHRSRVLGRGHFGSVYHGTMDPLLNGLCAVKSILHRTDLEVEVERLEGIL 1141
Cy 1349 -----EKGLKLPQOLINNKVLLSFIITLE-----1373

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Db 1202 GMEYLQKFKFHHDLAARNCMDETLTVKADPGLARDFGKEYY-----SIRQHRHAK 1255
Cy 1425 LLLR--RTESVAKMLTN--W-FTLLYKPLKXGAGPFLPSLFCALKOQWKEGPIDAI 1477
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Cy 1478 TGEARYSLSEDKILROQIDYKTL--VSCVSPDNANSP 1513
Db 1304 ---ARYLLRGRRLPQPOPCPDLYGVMLSCMAPTPEERD 1339

RESULT 6
US-08-556-422A-4
; Sequence 4, Application US/08556422A
; Patent No. 6576754
; GENERAL INFORMATION:
; APPLICANT: HALL, Kathryn T.
; APPLICANT: FREEMAN, Gordon J.
; APPLICANT: SCHULTZE, Joachim L.
; APPLICANT: BOUSSEIOTIS, Vaessliki
; APPLICANT: NADLER, Lee M.
; TITLE OF INVENTION: NUCLEIC ACIDS ENCODING CD100 MOLECULES
; FILE REFERENCE: DPN-005CPA2
; CURRENT APPLICATION NUMBER: US/08/556,422A
; CURRENT FILING DATE: 1995-11-09
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 607
; TYPE: PRN
; ORGANISM: Mus musculus
US-08-556-422A-4

Query Match 3.1%; Score 308; DB 4; Length 607;
Best Local Similarity 21.5%; Pred. No. 2e-18;
Matches 144; Conservative 110; Mismatches 257; Indels 160; Gaps 29;

Cy 36 KORSFVTFREGEPRAGNHVVDERTGHYLVGNRIYKLSPTKLVYTHE-----TGDE 90
Db 1 EBLIKKFEHENSNTALLISODGKTLVYGAREALFALNSLSTLPGGEYVELLMSADA 60
Cy 91 DNRKCYPRIVQTCN---EPLTTNNVAKMLIDYKENRLIAG--SLYQIGIKLLRLD 145
Db 61 DRK-----QQCSFKGMDPKRDCQNYIKILL-PLNSHLLTCCYAAFFSPICAYIHAS 111
Cy 146 LFLGEPYHKKHXYLGSVNGSGVFGVLYVSGNLD-----DLTFLATA--VYKDEY 195
Db 112 -FTLAQ-----DEAGNVI-----LEDGKHCPFDNFKSIALVVDG--EL 148
Cy 196 F-----PTISSRKLTKNSEADGMFAVVFHDEFVASMIKIPSDTFTIIPFDIYY 244
Db 149 YTGTVSFGQNDPAISRQSSRPTKTESLNMLOPAFAVASPSPESLSPIGDDKLYF 208
Cy 245 VYGSSGNFVYFLTLPRMWSPPGSTTKEQVYTSKLVLRCKEDTA-----FNSYEV 296
Db 209 FFSSETGGEFF-----ENTVSRVAKVCKDDEGGERVLQGRWTSFLKA 252
Cy 297 PIGGER--SGVEYRLQAAVYLSKAGAVLGRTLGVHDD--DLTFTVSKGQKXKSLD 351
Db 253 QLLCSRRDDDFPENVLDVFE-----TLNPNQDRKTLISGVFSGWR--GTE 300
Cy 352 ESALCIPILKQINDRIKERLOS CYRGEGLDLAM-LKYVIDCSAALLTIDNFCGLDMN 410
Db 301 GSALCVFTM--ND-VQKAFDGLYKKNRELTQMTTEHTQVTPPGACITMSABERKIN 356
Cy 411 APAGVSD-----MRGIPVTEBRDKTSTYIAN--VKNSHLAVGTS 452
Db 357 SSIQEDRVVLPKDFLMDQVRSRLILLOPRARQVAVAVRPGVHSTYDVLFGTGD 416

```

453 GKLKIRYDGRGNALQYETVQVVDPGFVLDMAFSKDHBQLYIMSEBOLTRVPEVSCQ 512  
417 GRHKAVTLASRVHII--EELQIPQGPVQVQNLBDSGLVLAASHGVQVAVANGSL 474  
513 YQSGCEGLSGSDPHCGM---CVLHNT-----CTRKECERSKERRRA 552  
475 YPTGDCCLARDPYCAMTGSACRLASLYQDPLASRPMTODIEGASVKECKXSSYKARPL 534  
553 SEMKQCVRLTVHPNNISVQYVLLVLET---YNNPELSAGVNCCTFEEDLSEMDGLVGN 608  
535 VPKRCKQVQIQPTVTVTLACPLLSNLTATRLMWHNAGPVAASACRV--LPTGDLILLVGS 592  
609 Q-----IQCY 614  
593 QQGLGVFQCMS 603

## RESULT 7

US-09-077-940A-4  
Sequence 4, Application US/09077940A  
Patent No. 6576441  
GENERAL INFORMATION:  
APPLICANT: KIMURA, Toru et al.  
TITLE OF INVENTION: NOVEL SEMAPHORIN 2 AND GENE ENCODING THE SAME  
FILE REFERENCE: 0020-4426P  
CURRENT APPLICATION NUMBER: US/09/077, 940A  
CURRENT FILING DATE: 1998-06-05  
NUMBER OF SEQ ID NOS: 20  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 4  
LENGTH: 888  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-09-077-940A-4

Query March 2.6%; Score 263; DB 4; Length 888;  
Best Local Similarity 23.7%; Pred. No. 4.8e-14;  
Matches 144; Conservative 90; Mismatches 208; Indels 192; Gaps 34;

11 LLSHLNVMGMSSTLLTRQAPALPSQKQSFVTF-----RGEPAEGFHLVVD-- 57  
13 LLLLLLLLG-GAHGLFEDPEPPLSVARPDYLNHYFVFGSGPRLTPAGADDLNIGRYL 71  
58 --ERTGHIYLGAVNRIYKL-----SSDLKV--LVTHETGDEDNPKCYPRIVQTCNRP 107  
72 RVNRT--LFIDRDLNLYRVELPEPTSTELRYOKRLTRSNPSINCRKKGQEGECR-- 127  
108 LTTNNVNMKMLIDYKENRLIAGCS-LYOGICKLLRLLEDLFLKGE-----PYHKEH 158  
128 ---NPFYVILLRD--ESTLFCGSMNFPNCANYSIDTLQPVGDNISGMARCPYDPK-H 180  
159 YLGSNMGSGSVFQIVS-----YSNLDKLFITAVDGKPEVFPITSSKILTKNSE 209  
181 ANVALFSGMLFTKATVIDFLAIDAVIYRSLGDR-----FLIKRYK----- 220  
210 ADGMFAVYHDEFAVSMIKIPSDTFTIIPFDIYVYVFGSSGNFVFLTLQPEMVSPPGS 269  
221 ---HD---SKWFKEP-----YFVAVEMGSHVYFFREIAM---EF 252  
270 TTKEOVNTSKVLCKEDTA-----FNSYVEVPIGERSG---VEYRLIQAAIYLSK 317  
253 NYLEKVVSVRAKCKNDVGSFVLEKQWTSFLKARLNSVPGDSHFYFNVLQAV---- 308  
318 AGAVLGRITLVHPDDDLFTVFSKGQRKKSIDESALCFILIKQINDRIKERLQSCYRG 377  
309 TGVV--SLGRP---VLAIFS---TPSNSIFGSAVCAFDLTVAAVEEGF---FRE 354  
378 EGTLDLAWLKVKD--IP-----SSALLTIDNFCGIDMNA-----PLGSDMVRGIPVT 426  
355 QKSPESITWTPVEDQVRRPRGCCA-----PGQVYASASALDDDLNFKVHPHLM 406  
427 ED-----RDRMTSVIAYV---YKNSLAVGTSGKLKIRY-----D 461

407 EAVPSLGHAFWILTRMLTRHQLTRVAVDVAGFQWQTVFLGSEAGTVLKFLVRENASTS 466  
462 GPRGNALQYETVQVVDP-----GPVLDMAFSKDHBQLYIMSEBOLTRVPEVSC 510  
467 GTSGLSYFLFEPTTYPRDKCRPGGEGTQRLSLSELDASGGLLAAPRCVVRVAVARC 526  
511 GQYOSC-GECGLSGDPHCGM---CVLHNTCTR 538  
527 QQYSGCKMKCIGSQDPCGMADPGSCIFLSPGTR 560

## RESULT 8

US-09-077-940A-2  
Sequence 2, Application US/09077940A  
Patent No. 6576441  
GENERAL INFORMATION:  
APPLICANT: KIMURA, Toru et al.  
TITLE OF INVENTION: NOVEL SEMAPHORIN 2 AND GENE ENCODING THE SAME  
FILE REFERENCE: 0020-4426P  
CURRENT APPLICATION NUMBER: US/09/077, 940A  
CURRENT FILING DATE: 1998-06-05  
NUMBER OF SEQ ID NOS: 20  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 2  
LENGTH: 887  
TYPE: PRT  
ORGANISM: Rattus norvegicus  
US-09-077-940A-2

Query March 2.4%; Score 244.5; DB 4; Length 887;  
Best Local Similarity 22.2%; Pred. No. 2.3e-12;  
Matches 141; Conservative 86; Mismatches 206; Indels 203; Gaps 34;

8 WT-----CLLSHLNVMGMSSTLLTRQAPALPSQKQSFVTF-----RGEPAE 49  
2 WTRAPRPRALLFILLRLRVTGHLFPEDEPPLSVARPDYLNHYFVFGSGPRLTPAE 61  
50 GPNHLYVD---ERTGHIYLGAVNRIYKL-----SSDLKV--LVTHETGDEDNPKCY 96  
62 GAEDLNIQRYLVRNRT--LFIDRDLNLYRVELPEPTSTELRYOKRLTRSNPSD----- 113  
97 PRIVQTC---NEPLTTNNVNMKMLIDYKENRLIAGCS-LYOGICKLLRLLEDLFLKGE 151  
114 ---IDCRKKGQEGECNPFYKILLRD--ESTLFCGSMNFPNCANYSMDTLQLLGD 167  
152 ---PYNKEHILSGVNSGSVFQIVS-----YSNLDKLFITAVDGKPE 194  
168 NISGMARCPYDPK-HANVALFSDGMLFTATVIDFLAIDAVIYRSLGDR----- 214  
195 YPPTISSEKILTKNSEADGMFAVYHDEFAVSMIKIPSDTFTIIPFDIYVYVFGSSGNFV 254  
215 --FLIKRYK-----HD---SKWFKEP-----YFVAVEMGSHV 242  
255 YPPTIDPEMVSPPGSTTKEQVYTSKVLCKEDTA-----FNSYVEVPIGERSG- 304  
243 YFFREIAM---EFNYLEKVVSVRAKCKNDVGSFVLEKQWTSFLKARLNSVPGD 298  
305 --VEYRLIQAAIYLSKAGAVLGRITLVHPDDDLFTVFSKGQRKKSIDESALCFILIKQ 362  
299 SHRYFNVLQAV---TGVV--SLGRP---VLAIFS---TPSNSIFGSAVCAFDVNO 344  
363 INDRIKERLQSCYRGSGTLDLAWLKVKD--IP-----SSALLTIDNFCGIDMNAPIGV 415  
345 VAAVFSR---FREKSPESITWTPVEDQVRRPRGCCA-----PGQVYASNAI 392  
416 SD-----MYNGIP-----YTEDRDRMTSVIAYV---YKNSLAVGTGS 452  
393 PDEILNFVKTFLPMDAVPSLGHSPWITVTLTRHQLTRVAVDVAGFQWQNTIVELGSEV 452  
453 GKLKXI-----RVDEPRGNALQYETVQVVDP-----GPVLDMAFSKDHBQL 494  
453 GYVNLKFLVPMASVSGITGPSIFLEBEFTYRDRGRSSAGKQRLSLSELDASGL 512

QY 495 YIMSERQLTRVYVESCQGYQSC-GECLSGDPHCGM 529  
DB 513 LAAPRCVAVRVAVRCOLYSGCMKNCIGSDPYCGM 548

## RESULT 9

US-08-121-713D-62  
Sequence 62, Application US/08121713D  
Patent No. 5639856  
GENERAL INFORMATION:  
APPLICANT: Goodman, Corey S.  
APPLICANT: Kolodkin, Alex L.  
APPLICANT: Matthes, David R.  
APPLICANT: Bentley, David R.  
APPLICANT: O'Connor, Timothy  
TITLE OF INVENTION: The Semaphorin Gene Family  
NUMBER OF SEQUENCES: 100  
CORRESPONDENCE ADDRESS:  
ADDRESSES: SCIENCE & TECHNOLOGY LAW GROUP  
STREET: 268 Bush Street, Suite 3200  
CITY: San Francisco  
STATE: CA  
COUNTRY: USA  
ZIP: 94104  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/121,713D  
FILING DATE: 13-SEP-1993  
CLASSIFICATION: 514  
ATTORNEY/AGENT INFORMATION:  
NAME: Osman, Richard A.  
REGISTRATION NUMBER: 36,627  
REFERENCE/DOCKET NUMBER: B94-002-1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415)343-4341  
TELEFAX: (415) 343-4342  
TEXT:  
INFORMATION FOR SEQ ID NO: 62:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 724 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-121-713D-62

Query Match 2.3%; Score 227; DB 1; Length 724;

Best local similarity 20.4%; Pred. No. 5.9e-11;  
Matches 147; Conservative 118; Mismatches 260; Indels 196; Gaps 36;

QY 53 HLWVDRTHIYGAUVRIRYKLSDDLKAVYTHETGPDENPKCYPRIVQTCNEZLTTN 112  
DB 72 HMEEDDT-LYIGANDRVRRV-NQNTSSSNCNDAN-----LEPRDQVSCV 119  
QY 113 NVAKMLLDYKENRLIACGSLYOGICKLRLLEDLFGSPYHKEHY-----LSGVNBSG 167  
DB 120 SKGKQIFDCK-NHVRVIGMDQG-----DLVYCGTNAHNPDKDYVIYANLTHLRSE 171  
QY 168 SVFGVIVS-----YSNLDDLFIATAV---DGKPEYFPITSSRKLKNSADQMFAVYH 219  
DB 172 YVIGVGIGIKACYDPIDN---STAIYENGNPGLFGLYSTNAFTKAD---TVIR 224  
QY 220 DEFVAMIKLPDFTFTIPDFDI-----YVYGGSSGNFYFLTQP---EMVSPGSGTT 271  
DB 225 TDLYNISAKRLKYEKFKTKLYDSKMLDKPFGVSPDIGEVYFFPFEIYVEVIN---C 279  
QY 272 KEQVYTSKIVRLKEKEDPA-----FNSVVEVPICGSRSG---VEYRLQAAVYSKAGA 320  
DB 280 GKAVY-SRIARVCKQDVGGKMLAHMWATYLRKRLNCSISGEPPFFNEIQSYV----- 332

QY 321 VLGRTIGVHPDDLLFTVFSKQKRMKSLDSALCIFILKQI-----NDRIKERLQSCYR 376  
DB 333 -----QLPSDKSRFFATFT-----TSTNGLISAVSSEFINELOAFAFKFQESSS 379  
QY 377 GEGTLDLAWLKVXD--IPCSALLTIDNFCGLDMNAPLGVSDMWGIP----- 423  
DB 380 -----NSAWLFLVINSRVPEPRPGTCVNDT-----SNLPDTVINFIKSHPLMDKAVNHEHN 429  
QY 424 -----VFTE---DRDMTSLVAVYKNNHSLAVGKSGGLKRIKRDGPRGNAL-QY 470  
DB 430 NPVYKREDLVFTGLVVDKIR---IDLNOEYIVYVGNLNGRIYKIYQYIRNGESLSLQ 485  
QY 471 ETQVAVDPGCVLMDMAFSKDHEQLYTMSEROLTRVPEVSCG-QYOSCGECLSGDPHCGM 529  
DB 486 LDIFEVAPNEALQVMEISQTRKSLVITGDRIRKQIDLAMCNRXYDNCFCRCV--RDYPCGM 543  
QY 530 CVLHNTCTRKER-----CERSEKPRRFSKMKQCYRLVHPNNISVSQYNYL 576  
DB 544 DKRANTCRPYELDLQDVANETSDIDSSVLKRIIVTYGQSVHLGCF----- 591  
QY 577 LVLETYVVPGLSAGVANCCTFEDLSMDGLVGNQIOCCSPAKKEVPRITENGDHVVQIQ 636  
DB 592 -----VXIPFVLKNEQVTWYHNSKDKGRY---EIR-YSPTR-----YIETTERGLVYVS 636  
QY 637 LKSKETGMTFASFSFVFNCSVHNSCLSCVSPYRCHWKYR-----HYCTHDPKTCSPQ 691  
DB 637 VNEADGR-----YDCHLGSSLL-----CSYNTVDAHRTCPENKSNQDYQ 676  
QY 692 E 692  
DB 677 K 677

## RESULT 10

US-08-835-268-62  
Sequence 62, Application US/08835268  
Patent No. 5807826  
GENERAL INFORMATION:  
APPLICANT: Goodman, Corey S.  
APPLICANT: Kolodkin, Alex L.  
APPLICANT: Matthes, David R.  
APPLICANT: Bentley, David R.  
APPLICANT: O'Connor, Timothy  
TITLE OF INVENTION: The Semaphorin Gene Family  
NUMBER OF SEQUENCES: 100  
CORRESPONDENCE ADDRESS:  
ADDRESSES: SCIENCE & TECHNOLOGY LAW GROUP  
STREET: 268 Bush Street, Suite 3200  
CITY: San Francisco  
STATE: CA  
COUNTRY: USA  
ZIP: 94104  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/835,268  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/08/121,713  
FILING DATE: 13-SEP-1993  
ATTORNEY/AGENT INFORMATION:  
NAME: Osman, Richard A.  
REGISTRATION NUMBER: 36,627  
REFERENCE/DOCKET NUMBER: B94-002-1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415)343-4341  
TELEFAX: (415) 343-4342  
TEXT:  
INFORMATION FOR SEQ ID NO: 62:



SEQUENCE CHARACTERISTICS:  
LENGTH: 724 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-09-964-956-13

Query Match 2.3%; Score 227; DB 1; Length 724;  
Best Local Similarity 20.4%; Pred. No. 5.9e-11;  
Matches 147; Conservative 118; Mismatches 260; Indels 196; Gaps 36;

53 HLVDERTGHIYLGAVNRIRYKLSDLKLVTHETGPDDEDNPKCYPRIVGTCNEPLTTN 112  
72 HMEEDRT-LYVGAMDRVRV-NLQNISSNCNRDAIN-----LEPTDDVAVSCV 119  
113 NVNKMILLIDYKRNRLIACGLYQICLRLLEDLFKLGEPYHKKEH-----LSGVNBSG 167  
120 SKGSKQIFDCK-NHVRVIGSDMG-----DRLVYCGTNANPKDVIYIYANLTHLPRSE 171  
168 SVFGVIVS-----YSNLDKLFATAV---DGKPEYPTISSRKLTKNSEADGMFAVVFH 219  
172 YVIGVGLIACKCPYDPLDN-----STAIYVENGNPGGLPGIYSGTNAEFTAD---TVIFR 224  
220 DEFVASMIRIPSDFTIIPDFI-----YVYGFSSGNFYFLTLQP--EMVSPGSTT 271  
225 TDLVNTSAKRLEVKFKRLKYDSKMLDKPNFVGSFDIGEVYFFPRETAVEYIN-----C 279  
272 KEQVYTSKIVRLCKEPTA-----FNSYVEVPICGERSG---VEYRLDQAAYLSKAGA 320  
280 GRAVY-SRIARVCKKQVGGKRLANMATYILARINCSISGEPPFYNEIQSVY----- 332  
321 VLGRTLGVHPDDLLFTVFSKQKRMKSLDESALCIFILKQI---NDRIKERLQSCYR 376  
333 -----QLPSDKSRFFATFT---TSTNGLIGSAVCSFHINEIOAFNGKFEQSSS--- 379  
377 GEGTLDLAWLKVKD--IPCSGALLTIDNFCGLDMNAPLGVDWVRGIP----- 423  
380 -----NSAMLPVLSRVEPRPGTCVNDT---SNLPTVLANFIRSHPLMDKAVNHEHN 429  
424 -----VFTE---DRDRTSVIAYVYKNSLAFFVGTSGSKLKKIRVDGPRGNAL-QY 470  
430 NPVYKRDVFTKLVVDKIR---IDLNGEYIYVYVGTNLRIRIKIYQVYNGSLSLKL 485  
471 ETVOVVDPGEVLDMAFSDKHQOLYMSERQLTRVVESSG-QYSGSGGLSGPRHGM 529  
486 LDIFEVAENAIQVMEISQTRKSLYIGTDHRIKQIDLAMCNRRYDCRCV--RDYCGM 543  
530 CVLHNTCTRKER-----CERSKEPRRFASEMKQCVRLTVHNNISVSQYVNL 576  
544 DKEANCTREYELDLQDVANETSDICDSVLKAKIYVYVGTSHLQCF----- 591  
577 LVLETYVNPPLSAGVCTFEDLSMDGLVVGNOIQCSPAKEVPRITENGDHAYVQIQ 636  
592 -----VKIPVAKNQYTWYHNSKDKGRY--EIR-YSPTR-----YLETTERGLVAVS 636  
637 LKSEETGEMTRASISFVYVNSVNSCLSCVESPYRCHWCKYR---HYCTHDPKTCSPQ 691  
637 VNEADGGR-----YDCHLGSSLL-----CSYNTVDAHAKCTPPKNSNDVQ 676  
692 E 692  
677 K 677

RESULT 11  
US-09-060-692-62  
Sequence 62, Application US/09060692  
Patent No. 5935865  
GENERAL INFORMATION:  
APPLICANT: Goodman, Corey S.  
APPLICANT: Kolodkin, Alex L.  
APPLICANT: Matthes, David  
APPLICANT: Bentley, David R.

APPLICANT: O'Connor, Timothy  
TITLE OF INVENTION: The Semaphorin Gene Family  
NUMBER OF SEQUENCES: 100  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: SCIENCE & TECHNOLOGY LAW GROUP  
STREET: 268 Bush Street, Suite 3200  
CITY: San Francisco  
STATE: CA  
COUNTRY: USA  
ZIP: 94104  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/060,692  
FILING DATE:  
CLASSIFICATION: 514  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/08/121,713  
FILING DATE: 13-SEP-1993  
ATTORNEY/AGENT INFORMATION:  
NAME: Osman, Richard A.  
REGISTRATION NUMBER: 36,627  
REFERENCE/DOCKET NUMBER: B94-002-1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415)343-4341  
TELEFAX: (415) 343-4342  
TELEX:  
INFORMATION FOR SEQ. ID NO.: 62:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 724 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-09-060-692-62

Query Match 2.3%; Score 227; DB 2; Length 724;  
Best Local Similarity 20.4%; Pred. No. 5.9e-11;  
Matches 147; Conservative 118; Mismatches 260; Indels 196; Gaps 36;

53 HLVDERTGHIYLGAVNRIRYKLSDLKLVTHETGPDDEDNPKCYPRIVGTCNEPLTTN 112  
72 HMEEDRT-LYVGAMDRVRV-NLQNISSNCNRDAIN-----LEPTDDVAVSCV 119  
113 NVNKMILLIDYKRNRLIACGLYQICLRLLEDLFKLGEPYHKKEH-----LSGVNBSG 167  
120 SKGSKQIFDCK-NHVRVIGSDMG-----DRLVYCGTNANPKDVIYIYANLTHLPRSE 171  
168 SVFGVIVS-----YSNLDKLFATAV---DGKPEYPTISSRKLTKNSEADGMFAVVFH 219  
172 YVIGVGLIACKCPYDPLDN-----STAIYVENGNPGGLPGIYSGTNAEFTAD---TVIFR 224  
220 DEFVASMIRIPSDFTIIPDFI-----YVYGFSSGNFYFLTLQP--EMVSPGSTT 271  
225 TDLVNTSAKRLEVKFKRLKYDSKMLDKPNFVGSFDIGEVYFFPRETAVEYIN-----C 279  
272 KEQVYTSKIVRLCKEPTA-----FNSYVEVPICGERSG---VEYRLDQAAYLSKAGA 320  
280 GRAVY-SRIARVCKKQVGGKRLANMATYILARINCSISGEPPFYNEIQSVY----- 332  
321 VLGRTLGVHPDDLLFTVFSKQKRMKSLDESALCIFILKQI---NDRIKERLQSCYR 376  
333 -----QLPSDKSRFFATFT---TSTNGLIGSAVCSFHINEIOAFNGKFEQSSS--- 379  
377 GEGTLDLAWLKVKD--IPCSGALLTIDNFCGLDMNAPLGVDWVRGIP----- 423  
380 -----NSAMLPVLSRVEPRPGTCVNDT---SNLPTVLANFIRSHPLMDKAVNHEHN 429  
424 -----VFTE---DRDRTSVIAYVYKNSLAFFVGTSGSKLKKIRVDGPRGNAL-QY 470  
430 NPVYKRDVFTKLVVDKIR---IDLNGEYIYVYVGTNLRIRIKIYQVYNGSLSLKL 485

QY 471 ETYQVVDGPGVLDMAFSGKHEDLYIMSERQITRVVPSG-QYSGCGECLSGDPHCGW 529  
Db 486 LDIFEVAFNEALQVMEISQTRKSLYIGTDHRIKQIDLAMCNRRYDNCRCV--RDPYCGW 543  
QY 530 CVLHNTCTRKER-----CERSKEPRRPASEMCKQVRLTVHPNNISVSQVYVL 576  
Db 544 DKEANTCRPYEDLLQDVANETSDICDSSVLKKIIVTYGQSVHLGCF----- 591  
QY 577 LVLETTYNVPBLSAGVNCFTFEDLSEMDGLVVGNOIQCYSPAKKEVPRIITENGDAHYVQLQ 636  
Db 592 -----VKIPBVLKNEQVLTWYHNSKDKGRY--EIR-YSPTR-----YIETTERGLVYVS 636  
QY 637 LKSKETGWTFASTSFVFNCSVHNSCLSCVSPYCHWCKXR-----HYCTHDPTKCSQ 691  
Db 637 VNEADGGR-----YDCHLGSSL-----CSYNTVDARCTPPNKSNDYQ 676  
QY 692 E 692  
Db 677 K 677

RESULT 12  
US-08-833-391-62  
Sequence 62, Application US/08833391  
Patent No. 6013781

## GENERAL INFORMATION:

APPLICANT: Goodman, Corey S.  
APPLICANT: Kolodkin, Alex L.  
APPLICANT: Matthes, David  
APPLICANT: Bentley, David R.  
APPLICANT: O'Connor, Timothy  
TITLE OF INVENTION: The Semaphorin Gene Family  
NUMBER OF SEQUENCES: 100  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: SCIENCE & TECHNOLOGY LAW GROUP  
STREET: 268 Bush Street, Suite 3200  
CITY: San Francisco  
STATE: CA  
COUNTRY: USA  
ZIP: 94104  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/833.391  
FILING DATE:  
CLASSIFICATION: 530  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/121.713  
FILING DATE: 13-SEP-1993  
ATTORNEY/AGENT INFORMATION:  
NAME: Osman, Richard A.  
REGISTRATION NUMBER: 36,627  
REFERENCE/DOCKET NUMBER: B94-002-1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415)343-4341  
TELEFAX: (415) 343-4342  
TELEX:  
INFORMATION FOR SEQ ID NO: 62:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 724 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-833-391-62

Query Match 2.3%; Score 227; DB 3; Length 724;  
Best Local Similarity 20.4%; Prob. No. 5.9e-11;  
Matches 147; Conservative 118; Mismatches 260; Indels 196; Gaps 36;

QY 53 HLYVDERHTGYIGAVNRITKLSGDIKLYLTHETGPEDBNKCYPRIVQTCNEPLFTTN 112  
Db 72 HNEEDRTD--LIVGMDVFRV--NLQWISSNCRDIN-----LEPTRDVSQV 119  
QY 113 NVNKKLLIDYKENRLIACSLGYGICUKLREDIFKLGEPYKKEHY-----LSGVNEG 167  
Db 120 SKGKQIIFDCK-NHVRVIGSDQG-----DRLYVCSTNANRPDYIYANLTHLPFSE 171  
QY 168 SVFGYIVS-----YSNLDKLFIAFV--DKEPEYFTTISRKLTKNSSEADGFAVEH 219  
Db 172 YVIGVGLIACCPDPLDN-----STALYVNGNPGGLGLVSGTNAETKAD--TVLFR 224  
QY 220 DEFVASKIPSDFTTIIIPFDI-----YVYFGSSGNFYFLTLP--EMVSPGSTT 271  
Db 225 TDLVNTSAKRLBYEKRTLKTKDKNLDPKNVGSIDGEYVFFREAVAYIN-----C 279  
QY 272 KEQVYTSKLVRLCKEDTA-----FNSYVEVPIGCRSG--VEYRLQAAVLSKAGA 320  
Db 280 GRVAV-SRIARVCKKDVGGKNLLAHNMATYLRKRLNCSISGEFPFNEIGSVY----- 332  
QY 321 VLGRTLGVHPDDLLFTVFSKQKRRKMSLDESALCIFILKQI--NDRIKERLQSCYR 376  
Db 333 -----QLPSDKSRFPATFT-----TSTNGLIGSAVCSFHINEIQAFNGKFKQSSS--- 379  
QY 377 GEGTLDLAMLKVKD--IPCSSALLTIDNFCGLDNNAPLVYSVMVRGIP----- 423  
Db 380 -----NSAMLPLYNSRVPEPRPGTCVNDT-----SNLEDTYVINFIRSHPLMDKAVNHEHN 429  
QY 424 -----VETE--DDEMTSVAYVYKXNSLAFVGTSGKLIKIVDGPFGNAL-QY 470  
Db 430 NPYVYKRDVFTKLVYDKIR--IDLINQEVYVYVGTNIGRIYKIVQYRRNGESLSKL 485  
QY 471 ETYQVVDGPGVLDMAFSGKHEDLYIMSERQITRVVPSG-QYSGCGECLSGDPHCGW 529  
Db 486 LDIFEVAFNEALQVMEISQTRKSLYIGTDHRIKQIDLAMCNRRYDNCRCV--RDPYCGW 543  
QY 530 CVLHNTCTRKER-----CERSKEPRRPASEMCKQVRLTVHPNNISVSQVYVL 576  
Db 544 DKEANTCRPYEDLLQDVANETSDICDSSVLKKIIVTYGQSVHLGCF----- 591  
QY 577 LVLETTYNVPBLSAGVNCFTFEDLSEMDGLVVGNOIQCYSPAKKEVPRIITENGDAHYVQLQ 636  
Db 592 -----VKIPBVLKNEQVLTWYHNSKDKGRY--EIR-YSPTR-----YIETTERGLVYVS 636  
QY 637 LKSKETGWTFASTSFVFNCSVHNSCLSCVSPYCHWCKXR-----HYCTHDPTKCSQ 691  
Db 637 VNEADGGR-----YDCHLGSSL-----CSYNTVDARCTPPNKSNDYQ 676  
QY 692 E 692  
Db 677 K 677

RESULT 13  
US-09-060-610-62  
Sequence 62, Application US/09060610  
Patent No. 6344544

## GENERAL INFORMATION:

APPLICANT: Goodman, Corey S.  
APPLICANT: Kolodkin, Alex L.  
APPLICANT: Matthes, David  
APPLICANT: Bentley, David R.  
APPLICANT: O'Connor, Timothy  
TITLE OF INVENTION: The Semaphorin Gene Family  
NUMBER OF SEQUENCES: 100  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: SCIENCE & TECHNOLOGY LAW GROUP  
STREET: 268 Bush Street, Suite 3200  
CITY: San Francisco  
STATE: CA  
COUNTRY: USA  
ZIP: 94104  
COMPUTER READABLE FORM:

MEDIUM TYPE: floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/060,610  
FILING DATE:  
CLASSIFICATION:  
PRIORITY APPLICATION DATA:  
APPLICATION NUMBER: 08/835,268  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Osman, Richard A.  
REGISTRATION NUMBER: 36,627  
REFERENCE/DOCKET NUMBER: B94-002-1  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 343-4341  
TELEFAX: (415) 343-4342  
TELEX:  
INFORMATION FOR SEQ ID NO: 62:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 724 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-09-060-610-62

Query Match 2.3%; Score 227; DB 4; Length 724;  
Best Local Similarity 20.4%; Pred. No. 5.9e-11;  
Matches 147; Conservative 118; Mismatches 260; Indels 196; Gaps 36;

QY 53 HLVDEKTHIYGAVNRIRYKLSDELKVLVTHETGPEDEPKCYPRIVOTCNEPLTTN 112  
DB 72 HNNEDRDT-LYVGMADVFRV-NLQNISSNCRDAIN-----LEPTRDVAVSCV 119  
QY 113 NVNKKLLIDYKENRLIAGSLYOGICLRLLEDLFKLGEPYHKKEHY-----LSGVNBSG 167  
DB 120 SKGSKQIFDCK-NHVRVIGSMDOG-----DRLVYCGTNAHPKDYIYANLTHLPSE 171  
QY 168 SVFGVIVS-----YSNLDDKLFATAV---DGKPEYPTISSRKLTNKSADGMFAVYFH 219  
DB 172 YVIGVGLIAGKCPYDPLDN---STAIYVENGNPGGLGIVSGTNAEFTKAD---TVIFR 224  
QY 220 DEFVASMIKIPSDFTITIIIDPDI-----YVYVGSNGFVYELLQF---EMVSPGSGTT 271  
DB 225 TDLVNTSAKRLYEYKFKTLKYSKWLDPKPNFVGSFDIGEVYFFFRRTAVEYIN-----C 279  
QY 272 KEQVYTSKVLRLCKEDTA-----FNSYVEVPICGERSG---VEYRLQAYLSKAGA 320  
DB 280 GKAVY-SRIARVCKKDVGGKRLAHNMATYIKARLNGSISGFPFYNEIQSVY----- 332  
QY 331 VLGHTLGVHPDDDLFTVFSKQKRMKSLDESALCIFILKQI---NDRIKERLOSQYR 376  
DB 333 -----QLPDSKSNRFAFT---TSTNGILGSAVCSFHINEIOAENGKFKQSSS--- 379  
QY 377 GEGTDLAMLVKYO--IPCSSALITIDNFGCLMNAFLGVSMVRIIP----- 423  
DB 380 -----NSAMLPVILMSRVEPRPGTCVNDT-----SNLPDVLNFRSHPLMDKAVNHEIN 429  
QY 424 -----VFTE---DSDRMTSVIAYVYKNSHSLAFVOTKSGKLKLRVDGPRGNAL-QY 470  
DB 430 NPVYKRLDLVFTKLVVDKIR---IDLNGEYIYVYGTNNGRIYKIVQYRYBNBSLSKL 485  
QY 471 ETVOVYDGPVLRDMAFSKDHEQLYINSEKQLTVPVPSGCG-QYQSGGCELGSGDPRHGM 529  
DB 486 LDIFEVAPNEAIQVWEISQTRKSLYITGDHRIKQIDLAMCNRRYDNCFRCV--RDPYCGM 543  
QY 530 CVLHNTCTYRKER-----CEKSKPRPFASEMKQCVALLTHPNNISVSQYNVL 576  
DB 544 DKEATCTCRPHYEDLLQDVANETSJCDSSVLKKIKIVLYGQSVHLGCF----- 591  
QY 577 LVLETVNPEISAGVNCFTFEDISEMDGLVGNQIQCSPPAAKEVPRITTEGHDHVVQLQ 636

DB 592 -----VKIPEVLKNEQVTHHNSKDKGRY---EIR-YSPRK-----YIETTERGLVVS 636  
QY 637 LKSKETGMPTASTSFVFNYSVNSLSCSVSPYRCHWKYR-----HCTHDPKYCSFO 691  
DB 637 VNEADGGR-----YDCHLGSSIL-----CSYNTIVDAHRTCPNPKSNDYO 676  
QY 692 E 692  
DB 677 K 677

## RESULT 14

PCT-US94-10151A-62  
Sequence 62, Application PC/TUS9410151A

GENERAL INFORMATION:  
APPLICANT: The Regents of the University of California  
TITLE OF INVENTION: The Semaphorin Gene Family  
NUMBER OF SEQUENCES: 66  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: FLEHR HOBBACH TEST ALBRITTON & HERBERT  
STREET: 4 Embarcadero Center, Suite 3400  
CITY: San Francisco  
STATE: CA  
COUNTRY: USA  
ZIP: 94111-4187  
COMPUTER READABLE FORM:  
MEDIUM TYPE: floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: PCT/US94/10151A  
FILING DATE: 13-SEP-1994  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Osman, Richard A.  
REGISTRATION NUMBER: 36,627  
REFERENCE/DOCKET NUMBER: FP-58750-PC/RAO  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 781-1989  
TELEFAX: (415) 398-3249  
TELEX: 910 277299 FHT UR  
INFORMATION FOR SEQ ID NO: 62:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 724 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
PCT-US94-10151A-62

Query Match 2.3%; Score 227; DB 5; Length 724;  
Best Local Similarity 20.4%; Pred. No. 5.9e-11;  
Matches 147; Conservative 118; Mismatches 260; Indels 196; Gaps 36;

QY 53 HLVDEKTHIYGAVNRIRYKLSDELKVLVTHETGPEDEPKCYPRIVOTCNEPLTTN 112  
DB 72 HNNEDRDT-LYVGMADVFRV-NLQNISSNCRDAIN-----LEPTRDVAVSCV 119  
QY 113 NVNKKLLIDYKENRLIAGSLYOGICLRLLEDLFKLGEPYHKKEHY-----LSGVNBSG 167  
DB 120 SKGSKQIFDCK-NHVRVIGSMDOG-----DRLVYCGTNAHPKDYIYANLTHLPSE 171  
QY 168 SVFGVIVS-----YSNLDDKLFATAV---DGKPEYPTISSRKLTNKSADGMFAVYFH 219  
DB 172 YVIGVGLIAGKCPYDPLDN---STAIYVENGNPGGLGIVSGTNAEFTKAD---TVIFR 224  
QY 220 DEFVASMIKIPSDFTITIIIDPDI-----YVYVGSNGFVYELLQF---EMVSPGSGTT 271  
DB 225 TDLVNTSAKRLYEYKFKTLKYSKWLDPKPNFVGSFDIGEVYFFFRRTAVEYIN-----C 279  
QY 272 KEQVYTSKVLRLCKEDTA-----FNSYVEVPICGERSG---VEYRLQAYLSKAGA 320  
DB 280 GKAVY-SRIARVCKKDVGGKRLAHNMATYIKARLNGSISGFPFYNEIQSVY----- 332

QY 321 VLGRTLGVHDDDLFTVFSKQKRRKKSLDESALCIFILKQI-----NDRIKERLOSQYR 376  
DB 333 -----QLPBDKRRFFATFT-----TSNGLIGSAVCSFHINELOAFNGKFKQSSS--- 379  
QY 377 GEGTLDLAWLKVKD--IPCSSALLITIDNFCGLDMNAPLGVSDMVGIP----- 423  
DB 380 -----NSAMLPLVNSRVBEPBPGTCVNDT-----SNLPDVLNFIKSHPLMDKAVNHEHN 429  
QY 424 -----VETE---DRDRTSVIAYVYKNSHSLAFVGTSGKLKIRVDGPRGNAL-QY 470  
DB 430 NPVYVKDVLFTKLVNDKIR-----IDLNGEYIYVYGTNLGRILYKLYVRNGESLSKL 485  
QY 471 ETGVGVDPGVLKDMAFSKDHQOLYMSEROLTRVYESCG-QYOSGCELSGSDPHCGM 529  
DB 486 LDIFEVAPNEMIQMEISQTRKSLIYIGTDHRIKQIDLAMCNRRYDNCFCRCV-RDYPCCGM 543  
QY 530 CVLANTCTRKER-----CERSKEPRRPAEMKQCVRLTFVHPNNISVSQYVNL 576  
DB 544 DKEANTCPYELDLQDVANETSDICDSSVLKKKIIVTYGQSVHLGCF----- 591  
QY 577 LVLETYVPELSAGVNCFTFEDLSEMDGLVVGNOIQCYSPAKAVPRIITENGSHHYVQLO 636  
DB 592 -----VLPETVLKNEQVLTWYHSHKRGY---EIR-YSPTR-----YIETTERGLVYVS 636  
QY 637 LKSKETGTFASSTFVFNCSVHNSCLSVBSPYRCHMCKYR-----HVCTHDPKTCSPQ 691  
DB 637 VNEADGGR-----YDCHLGSL-----CSYNTITVDARCTCPKPKANDYQ 676  
QY 692 E 692  
DB 677 K 677

RESULT 15  
US-08-121-713D-58  
; Sequence 58, Application US/08121713D  
; Patent No. 5639856  
; GENERAL INFORMATION:  
; APPLICANT: Goodman, Corey S.  
; APPLICANT: Kolodkin, Alex L.  
; APPLICANT: Matches, David  
; APPLICANT: Bentley, David R.  
; APPLICANT: O'Connor, Timothy  
; TITLE OF INVENTION: The Semaphorin Gene Family  
; NUMBER OF SEQUENCES: 100  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: SCIENCE & TECHNOLOGY LAW GROUP  
; STREET: 268 Bush Street, Suite 3200  
; CITY: San Francisco  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94104  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/121,713D  
; FILING DATE: 13-SEP-1993  
; CLASSIFICATION: 514  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Osman, Richard A.  
; REGISTRATION NUMBER: 36,627  
; REFERENCE/DOCKET NUMBER: B94-002-1  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415)343-4341  
; TELEFAX: (415) 343-4342  
; TELEX:  
; INFORMATION FOR SEQ ID NO: 58:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 730 amino acids

QY 43 FRGEPAGEFNHLYDERTGHIYLAIVNRYKLS-SDL-----KVLVHETGPPEDNPKCY 96  
DB 41 FLGNESHKHDFELKEDHNSILVGARNTVNIISRLDLEPTQRIEWMSSGABRE-LCY 98  
QY 97 -PPRIYQCNPEPLTTNNVNMGLLIDYKENTLIACG-SLYOGICKLLEDFLKGEPYH 154  
DB 99 LKGSSEDDCQ-----NIRVLAKID--DKVLTICGNINAYFELCRHVALKD-----GDYV 146  
QY 155 KKE-----HYLSGVNBSGSVGVIVS-YSNLDDKLFTATAVDGKPEYFPTIS 201  
DB 147 EKEVEYGRGLCPDPDHNSTAIYSEGLYSATVADPFGSDPLIYRG-----PLRTE 196  
QY 202 RLTKNSADGMAFVHFDEFVASMIRKIPSDPTFIIPFDIYVYGFSSGNFYVFLTIQ 261  
DB 197 RSDLKQLANAFVNTMEYNDFI-----FFPFRTAVEYI---NCGKAIY----- 237  
QY 262 EWVSPGSGTKEQVYTSKVLVLCXEDTA-----FNSYVEVPIGERSGVYERLLQAA 313  
DB 238 -----SKAVAVCKHDKGPHQGGDRWTSFLKSRINCSPG-DYFPYENE 280  
QY 314 YLSKAGAVLGRTLGVHDDDLFTVFSKQKRRKKSLDESALCIFILKQINDRIKERS 373  
DB 281 IOSTSDIIEGNYG--QVEKLIYGVFT---TPVNSIGSVAVCAFSMS---ILSEFDG 330  
QY 374 CYRGEGLDLAWLKVKDI-----PCSSALLITIDNFCGLDMNAPLGVSDMVGIPV 425  
DB 331 PKEGETMNSMNLAVPSLKVPEPRPGQCVNDSRLTPD---VSVVFVKSHTIMDAVPAF 386  
QY 426 TEDRDMTSVIAVYV-----KNSLAFVGTSGSKLKT-----RVD 461  
DB 387 FTRPILIRISLQRFKTLAVDQVTPDGKAVDVFISTDGKIKALNSAFDSSDTPD 446  
QY 462 GPRGNALQYETVQVDPGVLEDM---AFSKDHQOLYMSEROLTRVYESCG-QYOSC 516  
DB 447 -----SVVIEZQVLPFGVPAKLVVAMDGDSDSLVYSDDEILAIKLHRGSDKITNC 501  
QY 517 GECLSGDPHCGMVLHNTCTRKERCERSKEPRF-----ASEMKQC 558  
DB 502 RECVSLQDDYCAMDNVELKCTAVGSPDWSAGRRFIONISLGEHRAC 548

Search completed: February 18, 2004, 16:42:28  
Job time : 37 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: February 18, 2004, 16:40:25, Search time 51 Seconds

(without alignments)  
7784.094 Million cell updates/sec

Title: US-09-964-956-13

Perfect score: 1 MKAMPNMTCLSHLMVGM.....QKLAKEVYITLMSLDNSK 1896

Scoring table: BLOSUM62  
Gapop 10.0, Gapext 0.5

Searched: 801455 seqs, 209382283 residues

Total number of hits satisfying chosen parameters: 801455

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database:

Published Applications AA:  
1: /cgn2\_6/prodata/1/pubpa/US07\_PUBCOMB.pep.\*  
2: /cgn2\_6/prodata/1/pubpa/PCF\_NEW\_PUB.pep.\*  
3: /cgn2\_6/prodata/1/pubpa/US06\_NEW\_PUB.pep.\*  
4: /cgn2\_6/prodata/1/pubpa/US06\_PUBCOMB.pep.\*  
5: /cgn2\_6/prodata/1/pubpa/US07\_NEW\_PUB.pep.\*  
6: /cgn2\_6/prodata/1/pubpa/PCFUS\_PUBCOMB.pep.\*  
7: /cgn2\_6/prodata/1/pubpa/US08\_NEW\_PUB.pep.\*  
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16: /cgn2\_6/prodata/1/pubpa/US10\_NEW\_PUB.pep.\*  
17: /cgn2\_6/prodata/1/pubpa/US60\_NEW\_PUBCOMB.pep.\*  
18: /cgn2\_6/prodata/1/pubpa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1814	18.2	344	12 US-10-108-260A-3245	Sequence 3245, App
2	1609.5	16.1	1806	12 US-10-369-493-5622	Sequence 5622, App
3	1351.5	13.5	552	10 US-09-909-320-170	Sequence 170, App
4	1351.5	13.5	552	10 US-09-909-088-170	Sequence 170, App
5	1351.5	13.5	552	10 US-09-905-291A-170	Sequence 170, App
6	1351.5	13.5	552	10 US-09-902-853-170	Sequence 170, App
7	1351.5	13.5	552	10 US-09-907-824-170	Sequence 170, App
8	1351.5	13.5	552	10 US-09-907-841-170	Sequence 170, App
9	1351.5	13.5	552	11 US-09-904-011-170	Sequence 170, App
10	1351.5	13.5	552	11 US-09-906-742-170	Sequence 170, App
11	1351.5	13.5	552	11 US-09-906-838-170	Sequence 170, App
12	1351.5	13.5	552	11 US-09-907-613-170	Sequence 170, App
13	1351.5	13.5	552	11 US-09-907-842-170	Sequence 170, App
14	1351.5	13.5	552	11 US-09-904-859-170	Sequence 170, App
15	1351.5	13.5	552	11 US-09-909-204-170	Sequence 170, App

16	1351.5	13.5	552	11 US-09-904-820-170	Sequence 170, App
17	1351.5	13.5	552	11 US-09-904-786-170	Sequence 170, App
18	1351.5	13.5	552	11 US-09-906-646-170	Sequence 170, App
19	1351.5	13.5	552	11 US-09-906-700-170	Sequence 170, App
20	1351.5	13.5	552	11 US-09-903-786-170	Sequence 170, App
21	1351.5	13.5	552	11 US-09-902-903-170	Sequence 170, App
22	1351.5	13.5	552	11 US-09-903-749A-170	Sequence 170, App
23	1351.5	13.5	552	11 US-09-904-119-170	Sequence 170, App
24	1351.5	13.5	552	11 US-09-904-956-170	Sequence 170, App
25	1351.5	13.5	552	11 US-09-902-736-170	Sequence 170, App
26	1351.5	13.5	552	11 US-09-907-794-170	Sequence 170, App
27	1351.5	13.5	552	11 US-09-903-943-170	Sequence 170, App
28	1351.5	13.5	552	11 US-09-904-462-170	Sequence 170, App
29	1351.5	13.5	552	11 US-09-907-925-170	Sequence 170, App
30	1351.5	13.5	552	11 US-09-902-692-170	Sequence 170, App
31	1351.5	13.5	552	11 US-09-903-520-170	Sequence 170, App
32	1351.5	13.5	552	11 US-09-905-056-170	Sequence 170, App
33	1351.5	13.5	552	11 US-09-909-064-170	Sequence 170, App
34	1351.5	13.5	552	11 US-09-904-553-170	Sequence 170, App
35	1351.5	13.5	552	11 US-09-905-381-170	Sequence 170, App
36	1351.5	13.5	552	11 US-09-907-575-170	Sequence 170, App
37	1351.5	13.5	552	11 US-09-905-088-170	Sequence 170, App
38	1351.5	13.5	552	11 US-09-902-759-170	Sequence 170, App
39	1351.5	13.5	552	11 US-09-902-634-170	Sequence 170, App
40	1351.5	13.5	552	11 US-09-902-713-170	Sequence 170, App
41	1351.5	13.5	552	11 US-09-907-979-170	Sequence 170, App
42	1351.5	13.5	552	11 US-09-902-615-170	Sequence 170, App
43	1351.5	13.5	552	11 US-09-903-925-170	Sequence 170, App
44	1351.5	13.5	552	11 US-09-906-760A-170	Sequence 170, App
45	1351.5	13.5	552	11 US-09-906-760A-170	Sequence 170, App

## ALIGNMENTS

RESULT 1  
US-10-108-260A-3245  
; Sequence 3245, Application US/10108260A  
; Publication No. US20040005560A1  
; GENERAL INFORMATION:  
; APPLICANT: HELIX RESEARCH INSTITUTE  
; TITLE OF INVENTION: No. US20040005560A1 full length cDNA  
; FILE REFERENCE: H1-A0106  
; CURRENT APPLICATION NUMBER: US/10/108,260A  
; CURRENT FILING DATE: 2002-03-27  
; NUMBER OF SEQ ID NOS: 5458  
; SOFTWARE: Patent in Ver. 2.1  
; SEQ ID NO 3245  
; LENGTH: 344  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-108-260A-3245

Query Match 18.2%; Score 1814; DB 12; Length 344;  
Best Local Similarity 100.0%; Pred. No. 5e-157;  
Matches 344; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1551	MDLEWRQSGAGMIIODEDITTKIENDMKRPLNTLAHYQVDPGVSVALVSKQVTANNVNN	1610
DB	1	MDLEWRQSGAGMIIODEDITTKIENDMKRLNTLAHYQVDPGVSVALVSKQVTANNVNN	60
QY	1611	STVSRTSASKYENMIRYGSPPSLSRTPMTTPDLESQVKNMHLVKNHEGDDQKEDRGS	1670
DB	61	STVSRTSASKYENMIRYGSPPSLSRTPMTTPDLESQVKNMHLVKNHEGDDQKEDRGS	120
QY	1671	KVASEIYLRLATATGTLQKFPDDLFETTFSAHSGSLPLAIKXMPFLDQADKXGH	1730
DB	121	KVASEIYLRLATATGTLQKFPDDLFETTFSAHSGSLPLAIKXMPFLDQADKXGH	180
QY	1731	DPVHRHTKSNCLPLRFWMNMIKNPQFVFDIHKNSITDACLSSVAQTFMDCSTSEHRIG	1790
DB	181	DPVHRHTKSNCLPLRFWMNMIKNPQFVFDIHKNSITDACLSSVAQTFMDCSTSEHRIG	240

QY 1791 KDSPEKLLIYKADIPSYKWERIYSDIGKPAISDQDMNAYLAQSGMHEENTMSAL 1850  
DB 241 KDSPEKLLIYKADIPSYKWERIYSDIGKPAISDQDMNAYLAQSGMHEENTMSAL 300  
QY 1851 SEIFSYGVKSEIIGPLDHDQCGKQKLAAYLEQVITLMSIDS 1894  
DB 301 SEIFSYGVKSEIIGPLDHDQCGKQKLAAYLEQVITLMSIDS 344

RESULT 2  
US-10-369-493-5622  
; Sequence 5622, Application US/10369493  
; Publication No. US20030233675A1  
; GENERAL INFORMATION:  
; APPLICANT: Cao, Yongwei  
; APPLICANT: Hinkle, Gregory J.  
; APPLICANT: Slater, Steven C.  
; APPLICANT: Goldman, Barry S.  
; APPLICANT: Chen, Xianteng  
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF  
; PLANTS WITH IMPROVED PROPERTIES  
; FILE REFERENCE: 38-10(52052) B  
; CURRENT APPLICATION NUMBER: US/10/369,493  
; PRIOR FILING DATE: 2003-02-28  
; PRIOR APPLICATION NUMBER: US 60/360,039  
; PRIOR FILING DATE: 2002-02-21  
; NUMBER OF SEQ ID NOS: 47374  
; SEQ ID NO 5622  
; LENGTH: 1806  
; TYPE: PRT  
; ORGANISM: Caenorhabditis elegans  
US-10-369-493-5622

Query Match 16.1%; Score 1609.5; DB 12; Length 1806;  
Best Local Similarity 26.4%; Pred. No. 7e-137;  
Matches 525; Conservative 346; Mismatches 773; Indels 341; Gaps 81;

QY 11 LLSHLLMVGMSSTLITROPAPLSQKRSFVTFRSGPAGFNHLYVDERTGHLYGAVNR 70  
DB 37 LISHFRA-----VTQPFETEGYQKLFHRSQH-----IDDFIVSRDQQTIVASLNR 85  
QY 71 IYKLSDDLKYLVTHER--GPEDNPKC-----YPPRIYQTCNEPLTTN 112  
DB 86 LTLSLSTS-NFSIGHVSLGVPQDSFWGSPADGSKCLTVNGHVFIIIFRDNRPPT-- 142  
QY 113 NVNKMLLIDYKENLLIACGSLVYQICLRLLEDLPKLGEPYAKKEHYLSGVNMSGVFRGV 172  
DB 143 DVRTKLIQILPTQIILQCGSVKLGSC-----STPNK--LSLITES-----T 182  
QY 173 IVGSN-----LDDKLFIATAVDGKREY--FPTISSKLT-KNSEADGMP--A 215  
DB 183 IANAANSPDASTYKTIIDNRLIYAASATKSPYRDPFPAVALINLGLAVENAGDLEGA 242  
QY 216 YVHDEFVAMIKIPSDTFTIIDFDIYVYGSGNFVFTLQPEMYSPPGSTTKEQV 275  
DB 243 AVFLRAAYKNAFK-----FLYTFHQHFVAVVA---MYTPRESRLP--- 280  
QY 276 YTSGULVLCKEPDIAFNSVVEVIGCE-RSGVEYRLQAAVLSKAGAVLGTTGVHDDDL 334  
DB 281 MTRKLIIFCRNDITFBSYSEIELQCGEDNTNTPFLNIIQSY-----DK 325  
QY 335 LFTVFSKQOKKMKLSDESAICIFILQINDRIKERIQCYSRSEGTDLAMLKVCIDPCS 394  
DB 326 LIASFST-----STSPKSIQVFSMOKVLTENVYNDRCRSGDISIRLPHIG-RDTKC- 378  
QY 395 SALLTIDNFGGLDMNAPLIGSDMVRGIPVETED-RDPMTSVIAVYVKHSLAFVGTSG 453  
DB 379 KAHPLLEBDS-----ELGVGSGIELVENSTKDIIMKVTSLNAV--DKALFAGTTTS 429  
QY 454 KLRKIRVDSGRNAL-QYETVQVVD--PGVLRDMASFSDHOLYINSEQLTRVVEGC 510  
DB 430 QIVFKWDEHNSNOLEBYGRKEVGDGRGSEVSKV--KFGDFVYQMPYGIILBELSTC 487

QY 511 GQYOSCGECLSGDPRHCGVLTANTCTRKERCERSEKPRRFASEKQC--VRLTVHPNI 568  
DB 488 SHHSSTCEGLVAVDPLCGWCHPTQSTTSARCT-----SPYTSQCPYVDGDPISFV 539  
QY 569 SVSQNVLLVLETYNVPELSAGVNCFE-----DISEMDGLVGNQIOCYSPAKEVPI 623  
DB 540 SVNSSTPI-----SFNHLHPPEVGFTRCQFGTSTSSIAMTTTGVSGPS-----EI 588  
QY 624 ITENGDHVVOLQLSKETGWTFASTSFVYVNCVHNSCLGVESPYRCWCKRHVCTH 683  
DB 589 FISPNTFEILLTSSINN--PISRNFTVYDCSGVGTCSGMSSEYNCAMSGJHKCN 645  
QY 684 DPKTCSFQBRKVLDPDCCQLARVDKILVVEV--IKPITLAKNLPQSQSGRGE--C 739  
DB 646 ---SC---GALEKSTAC--VKIQPRLPIAGSQOETVLSASNL--DTIDRREHFC 692  
QY 740 ILNIQSEORVPALRFNRSVVOCONTSYSEGEIINNLPVELTVVA--NGHFNIDNPAQNK 798  
DB 693 KVN-----EVSIAKIASDSIRCKIQLTSLNTSAMVVPISLITRDSVIDIAN----- 742  
QY 799 VHLKCGAFESGCLCLKADPDACWCGPGQCTTRQCPAQESQMLESKAKCTMP 858  
DB 743 VSLVSTNLIASDCSCIALSPSLSCWCN--RQCSHECH--ESK-----ATAVCDDP 790  
QY 859 RITEIIPVGRREGTKVTIRGENLGLPEFDIASHKVAVGVEGSPVVDGYTPAEQIVCEM 918  
DB 791 RIDPFTSPDIPAGGITIKIYGNDLGMSVEDVAGKIVVAGSRGN--IVEYHVNMIACQV 848  
QY 919 GEAKPSQAGFVEICVAVCRPEPMARSQIYYMTLTSDLKSRGPMGSGIYVITGN 978  
DB 849 DKGVSS---GPIRISGRATVA--VAESSELYSFVRSITSFAYPLYPISGGRITLYGON 904  
QY 979 LMGSNVYVWFGKQPCLFHR-RSPSYVCTTTSDEV-LEMKYSVQYDRAKIHQDLYFOY 1036  
DB 905 LSSGSQTSVVGMPCEIERVNSYVLTCLTPSGTRIGKARVAVVVDHSGQQLDQPEX 964  
QY 1037 VEDEPTIVRIPEWSIYSGNPIAVWGTLDLIONPQIRAHGKEHINI-----CEVLA 1090  
DB 965 RSDPSISIPMTSFFKAGRIYVYOGNSLTVQTAFLISSPTPEPTIISDLAPGHIN 1024  
QY 1091 ATEMTQAPALALGPDHQSULTERPEHFGILNVOSLILINKTFYYNPPFEAFGPS 1150  
DB 1025 STLMCTMPK-----ILETIRRAVYTTQPMQIYNPPLTSP--K 1062  
QY 1151 GILELKPGTPIILKGNLIPVAGNYKL--NYTVLGEKCTTVYSDV-QLICSPNL 1206  
DB 1063 GVRVHQBQSLIEGHNL-----NLAEPNDFKIFIGNERCYVTLVDVROLVCSGP- 1113  
QY 1207 IGRK-----VMARVGMESVPGVVIAPDSPSLPAIVSIAVAGLLI 1251  
DB 1114 VROPATDERGIPINGNPLTVIVGSLRHELGLEY--SDHALPRLSLILIG-LLL 1168  
QY 1252 FIVAVL-----IAYRKRESDLTLKRLQMDNLSSVVALECKEFAELQTD--THELTS 1305  
DB 1169 FIVTIVTMGLVFRBRROEREKEYRKIQLOQENIENNVRKECKQAFALQTNILSPKSA 1228  
QY 1306 DLDGAGIFLDYRYTKAVLEP--GIEDHPL--RDLVPGVRQGRVEKGLFQALINNK 1362  
DB 1229 NSVNLGPELINPPIHVENILMSDNLTSAPSLATLPY-----LAQFALLSFK 1278  
QY 1363 VFLSFRTLESQSFMSRDRGNVASHIMTVLQSKLEVAIDVLKOLLADLIDKLESKNH 1422  
DB 1279 GFIFTIVAASDVISISTSEKMSALISLIVLBNFSYCFEVVDLRAHIAFARVQNK-R 1337  
QY 1423 PKLIRTESVAAKLTWTFLLYKPLKEAGAPLSLPAIAQOMKEGSDIATGBAR 1482  
DB 1338 AELFRNDSVVEKQFSKMSICLYSHLTPQMS-YFLVYKALQYQIDKGVADVATGPAR 1396  
QY 1483 YLSSEDKLIRQOIIDYKTVLSVSPDNANSPEVVKILNCDTITTOVEKILDAIFKQVPC 1542  
DB 1397 YTINAKLIRRESVDIKIKIR-VIPEKCDSDIDLEVACDAICQVKQKVASAVYRETPY 1455  
QY 1543 SHRPADMDLEWROGSGARMILDD---EDITTKIENDMK---RLNLTAVIYQVDDGSVV 1595

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DB 1456 SORPRITQELKCKPKRBDVLTDLVLEPIETLSCK-----KLPHYKLTFLADYGISDQCTL 1510  
QY 1596 ALVSKQVAYANVANNSVTSRTSASKYEMIMRYTG--SPDSLRSRTPMITDLSGVAMW 1653  
DB 1511 EKSPAVYI-----AESYRSLSDSCQSQSSMLDRSP-----IYSSKYH 1551  
QY 1654 LYKNEHGD---QKGGDRGS---RMSEIYTLTAKTGLQKQFVDDLFTETPSTAHNG 1706  
DB 1552 LT-NSSSGIMTEFKKSSNSMLPKSIPYVLTLLSKGTVEYVYEDFLESVLYM--HD 1608  
QY 1707 SALPFAIKYMFEDLEQADKHGIDPHYRATMKNCCLPLSPVVMIMNQPFVFDIHNSI 1766  
DB 1609 SSYPILKFFFDILDRRESVNGVBE-NICQOMKANGVLYRWANFVNPQLVDFVSHS 1667  
QY 1767 TDACISVVAQTMDSCSTSEHRLGKDFPSNKLIAKDIPTKYKWEKYSIDIKMPAID 1826  
DB 1668 MDANISTVAQTMDCDFSESEVPLGAHSPSSLLFPAKQVARIPLSVDLFRKXNSPPLCW 1727  
QY 1827 QDMNAVLAEGSRMHNENFTMS---ALSEIFSYGKYSEIILGPDLDHDOCKOKLAWK 1882  
DB 1728 DELRELVNMA-----NDVSTCKSSSLALSELISWVRNGIRIGQLSSNNGFSCQLPK 1783  
QY 1883 LEQVI 1887  
DB 1784 LSQVL 1788

RESULT 3  
US-09-909-320-170  
Sequence 170 Application US/09909320  
Patent No. US20020132240A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Baton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerltsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gurney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kljavin, Ivar J.  
APPLICANT: Mathier, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tunas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
FILE OF INVENTION: 10466-14  
CURRENT FILING DATE: US/09/909,320  
PRIOR APPLICATION NUMBER: US/09/909,320  
PRIOR FILING DATE: 2000-01-04  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08

QY 23 STILLROQAPLPSOKR-----SFTVPRGPAE- 49  
DB 45 SLLT--AALSMQEQPWRALVDSRSVYLLSVWVLAPPAACMPFSTFHSNRM 102  
QY 50 GFNHLVVDERTGHIIYAGVNRIRKLSDDLKVLTHTGDEEDNPKCYPRRIYQCKEPLT 109  
DB 103 TFNHLTVHQGTGAVYGAIRVYKLMGNLTIQVAKHTGPEEDNKSRIPLIVQPCSEVLT 162  
QY 110 TTNVNVKMLIDKKEKRLIACSLYQGIKLLLELDLFTLGEPPYKKEHYLSGVNESGV 169  
DB 163 LTNVNVKMLIIDSEKRLIACSLYQGVCKLRDLFLVPSHKEHYLSVKNKTGM 222  
QY 170 FGVIVSYNSLDDKFLATAVDGKPEYFPTISRKLTNSBADQMAFYVHDEPVASMIKI 229  
DB 223 YGVIVRSEGEDGLFTGTAVDGKODYFPTLSRKLPREDSSAMLDYELHSDPVSILIKI 282  
QY 230 PSDFTIIPDPIYVYVGFSSGNFYFLTLOPMVSPG---STYEGQVYTSKLVLCSE 286  
DB 283 PSDTLAVSHFDLYIYGFASGGFYFLTVQPE--TPBEVALNSAGDLYTSRIYRLCKD 340  
QY 287 DTAFNSTYEVPIGCGESGVEYRLLQAYLSKAGAVLGRTLGVHPDDLLFTVFSKQGRK 346  
DB 341 DPKFHSYVSLPFGCTAGVGYRLLQAYLAKPDSDLAQFNTSODVLFALFSKQGRK 400  
QY 347 MKSIDESALCTIFILKQINDRIKELQSCYRGEETDLAMLVKVDIPCSALLTIDNFCG 406  
DB 401 HHPRDSALCAPIRALINQIKRLOSQYGBENLEMLNLDKDVQCTAPVPIIDNFCG 460  
QY 407 LDMNAPVGVSDMVRGIPVFTEDRDNTSVIAYYKXHSALFVGTSGKUKKRIYVGPBN 466  
DB 461 LDINQPLGSGTPEVGLTYTTSRDMTSVASYVNGYSVVFVGTSGKUKKRV----- 514  
QY 467 ALQYE-----TVQVDPGVLRLDMASK--DHEQLYIMSRO 501  
DB 515 ---YEPKSNVAILHLSKESLBSGSYMMRFRYRQLVLYLGR 552

RESULT 4

Query Match 13.8%; Score 1351.5; DB 10; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3,4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;



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US-09-909-088B-170  
Sequence 170, Application US/0909088B  
Patent No. US20020146709A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerlitsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Guiney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavitt, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Thomas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
Acids Encoding the Same  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/909,088B  
CURRENT FILING DATE: 2001-07-18  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/21547  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/23089  
PRIOR FILING DATE: 1999-10-05  
PRIOR APPLICATION NUMBER: PCT/US99/28214  
PRIOR FILING DATE: 1999-11-29  
PRIOR APPLICATION NUMBER: PCT/US99/28313  
PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
SEQUENCE OF SEQ ID NOS: 423  
SEQ ID NO 170  
LENGTH: 552  
TYPE: PRT  
ORGANISM: Homo sapiens

US-09-909-088B-170  
Query Match 13.5%; Score 1351.5; DB 10; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3.4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;  
QY 23 SLLTROPAPLISQKOR-----SFTVFRGEPAB- 49  
DB 45 SRLLT--APPLSWQOPWPRPALEVDRSVLLSVWVLLAPPAAGMPQFSTFHSNRW 102  
QY 50 GFNHLVDERGTGHVYGAVERIKYSSDLKVLVTHETGDEDNPKCYPRIVQTCNEPLT 109  
DB 103 TFNHLTVHGTGAVVYGAIVRYKLTGNLTITQVHHTGPEEDNKRYPPLIVQPCSEVLT 162  
QY 110 TTNVNMKMLIDYKEMRLACGSLYOGICKLRLEDFLGPYPYKKEHYLSGVNESGSV 169  
DB 163 LTNVNMKMLIDYSENRLACGSLYOGICKLRLEDFLGPYPYKKEHYLSGVNESGSV 222  
QY 170 FGVIYSNLDKFLFATAVDGKPEYFTISSRKLTKNSEADGMFAVYHDEFVSMITK 229  
DB 223 YGVIVSEGEDGKFLGTAVDGKQDYFTLSSRKLPRDESSAMLDYELHSDVSSLIKI 282  
QY 230 PSOTFTIIPFDIYYVYSSGNFYVFLIQPMNSPPG---STKEQVYTSKLVLCKE 286  
DB 283 PSDTLALVSHFDIFLYVGFASGVVFLTVQPE--TPEGVAINSAGDLFTYSKIVLCLD 340  
QY 287 DTAFNSTVEVPIGCSGSEYRLLQAAVYLSKAGAVIGRTLVGHPDDLLFTVSKQOKR 346  
DB 341 DPKHSTVSLPFGCTAGVYRLLQAAVYLSKAGAVIGRTLVGHPDDLLFTVSKQOKR 400  
QY 347 MKSIDESALCITFLKQNDIKRLOSCTRGESTLLAMVYDICSMSLLTIIDNFG 406  
DB 401 HHPEDDSALCAPFIRALNIDIKERLOSCTRGESTLLAMVYDICSMSLLTIIDNFG 460  
QY 407 LDMNAPVGVSDMYRGIPVFTEDRDMTSVAVYVYKNSLSLAFVTSKGLKKIRVDGPRGN 466  
DB 461 LDINQPLGSGTPVBLGLTVYTSRDMTSVAVYVYKNSLSLAFVTSKGLKKIRVDGPRGN 514  
QY 467 ALQYE---TVQVDFGPLYRDMASGK-DHEQULYMSEQ 501  
DB 515 ---YEFRCNAHILSKESLBSYWMRFYRQLYFAGEGR 552  
RESULT 5  
US-09-905-291A-170  
Sequence 170, Application US/0905291A  
Patent No. US20020160374A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
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APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Thomas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.

;; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
;; FILE REFERENCE: 10466-14  
;; CURRENT APPLICATION NUMBER: US/09/905,291A  
;; CURRENT FILING DATE: 2001-07-12  
;; PRIOR APPLICATION NUMBER: PCT/US00/04414  
;; PRIOR FILING DATE: 2000-02-22  
;; PRIOR APPLICATION NUMBER: US 60/143,048  
;; PRIOR FILING DATE: 1999-07-07  
;; PRIOR APPLICATION NUMBER: US 60/145,698  
;; PRIOR FILING DATE: 1999-07-26  
;; PRIOR APPLICATION NUMBER: US 60/146,222  
;; PRIOR FILING DATE: 1999-07-28  
;; PRIOR APPLICATION NUMBER: PCT/US99/20594  
;; PRIOR FILING DATE: 1999-09-08  
;; PRIOR APPLICATION NUMBER: PCT/US99/20944  
;; PRIOR FILING DATE: 1999-09-13  
;; PRIOR APPLICATION NUMBER: PCT/US99/21090  
;; PRIOR FILING DATE: 1999-09-15  
;; PRIOR APPLICATION NUMBER: PCT/US99/21547  
;; PRIOR FILING DATE: 1999-09-15  
;; PRIOR APPLICATION NUMBER: PCT/US99/23089  
;; PRIOR FILING DATE: 1999-10-05  
;; PRIOR APPLICATION NUMBER: PCT/US99/28214  
;; PRIOR FILING DATE: 1999-11-29  
;; PRIOR APPLICATION NUMBER: PCT/US99/28313  
;; PRIOR FILING DATE: 1999-11-30  
;; PRIOR APPLICATION NUMBER: PCT/US99/28564  
;; PRIOR FILING DATE: 1999-12-02  
;; PRIOR APPLICATION NUMBER: PCT/US99/28565  
;; PRIOR FILING DATE: 1999-12-02  
;; PRIOR APPLICATION NUMBER: PCT/US99/30095  
;; PRIOR FILING DATE: 1999-12-16  
;; PRIOR APPLICATION NUMBER: PCT/US99/30911  
;; PRIOR FILING DATE: 1999-12-20  
;; PRIOR APPLICATION NUMBER: PCT/US99/30999  
;; PRIOR FILING DATE: 1999-12-20  
;; PRIOR APPLICATION NUMBER: PCT/US00/00219  
;; PRIOR FILING DATE: 2000-01-05  
;; NUMBER OF SEQ ID NOS: 423  
;; SEQ ID NO 170  
;; LENGTH: 552  
;; TYPE: PRT  
;; ORGANISM: Homo sapiens  
;; US-09-905-291A-170

Query Match 13.5%; Score 1351.5; DB 10; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3,4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

23 STLTROPAPISQQR-----SVTTRGEPAR 49  
45 SRLTL--AAPLSMQRQPPWRPALEVDRSVVLISVVWVLLAPPAAGMPQSTHSEKRD 102  
50 GFNLVVDERTGHIYLAQVNRITYLSSDLKVLVTHETGDEEDNPKCYPRIVOTCNBPLT 109  
103 TFFNLTHGCGAGVYVGAIRKRVYLTGNTLITQVANKTGPEEDKSRPPLIVQPCSEVL 162  
110 TTNVNNKLLIDYENRLLIACGSLYQICLLRLIEDLFGKGEPRHKKKHLISGVNBSGV 169  
163 LTNVNNKLLIDYENRLLIACGSLYQICLLRLIEDLFIIVEPBHKKKHLISVNTGTM 222  
170 FGVVSVSNLDDKFIETAVDGEPEYPTISSRKLTKNSADGFAVVFDEFEVASIKI 229  
223 YGVIVRSEGEDEGKLFIGNADGKDPFTLSRKLPRDPSSAALDVELHSDVVSILIKI 282  
230 PSDFTTIIIPDIIYVYVGFSSGNFVYPLTLOPEWVSSPG--STTGEQVTSKLVRLCKE 286  
283 PSDTLAVSHDFIYIFAGGFFVFLVQPE--TEGVAINSGDLFTYSRIVRLCKD 340  
287 DTAFSVYEVPIGCRSGVEYRLIQAAVLSKAGAVLSTGLGVHDDDLFTVFSKQGRK 346  
341 DPKHSIVSLPFGCTRAVEYRLIQAAVLSKAGAVLSTGLGVHDDDLFTVFSKQGRK 400

;; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
;; FILE REFERENCE: 10466-14  
;; CURRENT APPLICATION NUMBER: US/09/902,853  
;; CURRENT FILING DATE: 2001-07-10  
;; PRIOR APPLICATION NUMBER: US/09/665,350  
;; PRIOR FILING DATE: 2000-09-18  
;; PRIOR APPLICATION NUMBER: US 60/143,048  
;; PRIOR FILING DATE: 1999-07-07  
;; PRIOR APPLICATION NUMBER: US 60/145,698  
;; PRIOR FILING DATE: 1999-07-26  
;; PRIOR APPLICATION NUMBER: PCT/US99/21090  
;; PRIOR FILING DATE: 1999-09-15  
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;; PRIOR FILING DATE: 1999-09-15  
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;; PRIOR FILING DATE: 1999-10-05  
;; PRIOR APPLICATION NUMBER: PCT/US99/28214  
;; PRIOR FILING DATE: 1999-11-29  
;; PRIOR APPLICATION NUMBER: PCT/US99/28313  
;; PRIOR FILING DATE: 1999-11-30  
;; PRIOR APPLICATION NUMBER: PCT/US99/28564  
;; PRIOR FILING DATE: 1999-12-02

RESULT 6  
US-09-902-853-170  
Sequence 170, Application US/09902853  
Publication No. US20020192659A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Deanoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
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APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gurney, Austin L.  
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APPLICANT: Mather, Jennie P.  
APPLICANT: Pau, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Thomas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
;; TITLE OF INVENTION: Acids Encoding the Same  
;; FILE REFERENCE: 10466-14  
;; CURRENT APPLICATION NUMBER: US/09/902,853  
;; CURRENT FILING DATE: 2001-07-10  
;; PRIOR APPLICATION NUMBER: US/09/665,350  
;; PRIOR FILING DATE: 2000-09-18  
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;; PRIOR FILING DATE: 1999-10-05  
;; PRIOR APPLICATION NUMBER: PCT/US99/28214  
;; PRIOR FILING DATE: 1999-11-29  
;; PRIOR APPLICATION NUMBER: PCT/US99/28313  
;; PRIOR FILING DATE: 1999-11-30  
;; PRIOR APPLICATION NUMBER: PCT/US99/28564  
;; PRIOR FILING DATE: 1999-12-02

347 MKSIDBSALCFILKQINDRIKERLOSCHGEGLDLAMTKVNDIPCSSALLTIDNFCG 406  
401 HHPDSDALCAFPFIRAINLQIKERLOSCHGEGLDLAMTKVNDIPCSSALLTIDNFCG 460  
407 LDNNAPLGVSDMWYGVIFVPEDEDRDMTSVIAAYYKNSLAFFVGTSGKLKKIRVDEGRN 466  
461 LDINQPLGGSTPVEGLTLTYTSRDRMTSVASYYVNGYVVFVGTSGLKKRV----- 514  
467 ALQYE-----TVQYVDPGPIVLRDAFESK-DHEQYIMSEQ 501  
515 ---YEFCSNAHLLSKESLLEGSYWMRFNIRQLYFGEOR 552

PRIOR APPLICATION NUMBER: PCT/US99/28565  
 PRIOR FILING DATE: 1999-12-02  
 PRIOR APPLICATION NUMBER: PCT/US99/30095  
 PRIOR FILING DATE: 1999-12-16  
 PRIOR APPLICATION NUMBER: PCT/US99/30911  
 PRIOR FILING DATE: 1999-12-20  
 PRIOR APPLICATION NUMBER: PCT/US99/30999  
 PRIOR FILING DATE: 1999-12-20  
 PRIOR APPLICATION NUMBER: PCT/US00/00219  
 PRIOR FILING DATE: 2000-01-05  
 NUMBER OF SEQ ID NOS: 423  
 SEQ ID NO 170  
 LENGTH: 552  
 TYPE: PRT  
 ORGANISM: Homo Sapien  
 US-09-902-853-170

Query Match 13.5%; Score 1351.5; DB 10; Length 552;  
 Best Local Similarity 51.6%; Pred. No. 3.4e-114;  
 Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

23 STILLTROAPAPLSQKOR-----SEVTFGEPEAE 49  
 45 SRLLT--AAPLSMEQOPWPRALFVDSRSVLLSVVWVLLAPPAGMPOFSTFHSENDW 102  
 50 GFNHLVYDERTGHIYLGAVNRITYKLSDLKXVYTHETGDEDEPNKCYPRIVQTCNEPLT 109  
 103 TEHNLVHOGTGAVVYGAIRNRYKLTGNLTIOAHKGTPEEDNKSRYPLIVQPCSEVLT 162  
 110 TTNVVKMLIIDYKENLLACGSLYOGICKLRLBEDLFKGPYHKKHYSYGVNESSGV 169  
 163 LTNVVKMLIIDYSENRLACGSLYOGVCKLRLDLDLFLVPSHKEHYLSVANKTGM 222  
 170 FGIVYSNLDKFLTAIVDGPPEFPPTISSKRLTKSEADGMFAYVHDFVAMSKI 229  
 223 YGVIVSEGGDGLFTGTAVDGQDFPFLSSKRLPRDESSAMLDYELHSPVSSLIT 282  
 230 PSTFTFIIPDFIYVYVGFSSGNFVFLTLOPEMVSPPG---STTRGEVYTSKLVRLCKE 286  
 283 PSTLTALVSHFDLFIYVGFSSGNFVFLTLOPEMVSPPG---TPBGALINSAGDLFYTSRIYVLCID 340  
 287 DTAFNSTVEVPTGERSGVEYRLLOAAYLSKAGAVYGRILGVHDDLLFTVPSKQKQY 346  
 341 DPKFHSYVSLPFGCTRAGVYRLLQAAVYLAQAFNITISQDDVFAIFSKQKQY 400  
 347 MKSLDESALCIFILKQINDRIKERLSCYRGEGLDLIAWLKVDCISSALLITIDNPG 406  
 401 HHPDDSLALCFPRALNLOIKERLSCYRGEGLDLIAWLKVDCISSALLITIDNPG 460  
 407 LDMNAPLGVSMDYRGIPTVEDRDMTSTVIAVYKNSLAFVGTSGKGLKLRVYDPRGN 466  
 461 LDINQPLGSGTPEVGLTLYTTSRDMTSTVIAVYKNSLAFVGTSGKGLKLRVYDPRGN 514  
 467 ALOYE-----TVGVYDGPVLRDMAFSK-DHEOLYIMSEQ 501  
 515 ---YFRCNAIHLKESLDEGSGYMRFNIRQLYFLGEOR 552

RESULT 7  
 US-09-907-824-170  
 Sequence 170; Application US/09907824  
 Publication No. US20020197671A1  
 GENERAL INFORMATION:  
 APPLICANT: Genentech, Inc.  
 APPLICANT: Ashkenazi, Avi  
 APPLICANT: Botstein, David  
 APPLICANT: Desnoyers, Luc  
 APPLICANT: Eaton, Dan L.  
 APPLICANT: Ferrara, Napoleone  
 APPLICANT: Filvaroff, Ellen  
 APPLICANT: Fong, Sherman  
 APPLICANT: Geo, Wei-Qiang  
 APPLICANT: Gerber, Hanspeter

APPLICANT: Gerlitsen, Mary E.  
 APPLICANT: Goddard, A.  
 APPLICANT: Godowski, Paul J.  
 APPLICANT: Grimaldi, Christopher J.  
 APPLICANT: Gurney, Austin L.  
 APPLICANT: Hillan, Kenneth, J.  
 APPLICANT: Kijavira, Ivar J.  
 APPLICANT: Mather, Jennie P.  
 APPLICANT: Pan, James  
 APPLICANT: Paoni, Nicholas F.  
 APPLICANT: Roy, Margaret Ann  
 APPLICANT: Stewart, Timothy A.  
 APPLICANT: Tumas, Daniel  
 APPLICANT: Williams, P. Mickey  
 APPLICANT: Wood, William, I.  
 TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
 FILE OF INVENTION: Acids Encoding the Same  
 FILE REFERENCE: 10466-14  
 CURRENT APPLICATION NUMBER: US/09/907,824  
 CURRENT FILING DATE: 2001-07-17  
 PRIOR APPLICATION NUMBER: 09/665,350  
 PRIOR FILING DATE: 2000-09-18  
 PRIOR APPLICATION NUMBER: PCT/US00/04414  
 PRIOR FILING DATE: 2000-02-22  
 PRIOR APPLICATION NUMBER: US 60/143,048  
 PRIOR FILING DATE: 1999-07-07  
 PRIOR APPLICATION NUMBER: US 60/145,698  
 PRIOR FILING DATE: 1999-07-26  
 PRIOR APPLICATION NUMBER: US 60/146,222  
 PRIOR FILING DATE: 1999-07-28  
 PRIOR APPLICATION NUMBER: PCT/US99/20594  
 PRIOR FILING DATE: 1999-09-08  
 PRIOR APPLICATION NUMBER: PCT/US99/20944  
 PRIOR FILING DATE: 1999-09-13  
 PRIOR APPLICATION NUMBER: PCT/US99/21090  
 PRIOR FILING DATE: 1999-09-15  
 PRIOR APPLICATION NUMBER: PCT/US99/21547  
 PRIOR FILING DATE: 1999-09-15  
 PRIOR APPLICATION NUMBER: PCT/US99/23089  
 PRIOR FILING DATE: 1999-10-05  
 PRIOR APPLICATION NUMBER: PCT/US99/28214  
 PRIOR FILING DATE: 1999-11-29  
 PRIOR APPLICATION NUMBER: PCT/US99/28313  
 PRIOR FILING DATE: 1999-11-30  
 PRIOR APPLICATION NUMBER: PCT/US99/28564  
 PRIOR FILING DATE: 1999-12-02  
 PRIOR APPLICATION NUMBER: PCT/US99/28565  
 PRIOR FILING DATE: 1999-12-02  
 PRIOR APPLICATION NUMBER: PCT/US99/30095  
 PRIOR FILING DATE: 1999-12-16  
 PRIOR APPLICATION NUMBER: PCT/US99/30911  
 PRIOR FILING DATE: 1999-12-20  
 PRIOR APPLICATION NUMBER: PCT/US99/30999  
 PRIOR FILING DATE: 1999-12-20  
 PRIOR APPLICATION NUMBER: PCT/US00/00219  
 PRIOR FILING DATE: 2000-01-05  
 NUMBER OF SEQ ID NOS: 423  
 SEQ ID NO 170  
 LENGTH: 552  
 TYPE: PRT  
 ORGANISM: Homo Sapien  
 US-09-907-824-170

Query Match 13.5%; Score 1351.5; DB 10; Length 552;  
 Best Local Similarity 51.6%; Pred. No. 3.4e-114;  
 Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

23 STILLTROAPAPLSQKOR-----SEVTFGEPEAE 49  
 45 SRLLT--AAPLSMEQOPWPRALFVDSRSVLLSVVWVLLAPPAGMPOFSTFHSENDW 102  
 50 GFNHLVYDERTGHIYLGAVNRITYKLSDLKXVYTHETGDEDEPNKCYPRIVQTCNEPLT 109

Db 103 TFMHLTVHGTGAVYGAIRNRYKLTGNLTIOVAHKTGPEDNKSRYPLIYQPCSEVLT 162  
Qy 110 TTNVNNKMLLDYKENVLLACGSIYOGICCKLRLEDLFLKGPYHKKHLYLGSVNSGSV 169  
Db 163 LTNVNNKMLLDYKENVLLACGSIYOGICCKLRLEDLFLKGPYHKKHLYLGSVNSGSV 222  
Qy 170 FGVIVSYSLDDKLFIAVAVDGKPEYPTISSRKLTKNSPADGMFAVYHDEFAVSMIT 229  
Db 223 YGVIVRSEGEDGKLFITAVDGKODYPTLSSRKLPRDPSSAMLYELHSDVSSILIKI 282  
Qy 230 PSDFTIIPBDIYVYVGSFGSNFVYLTLPQEWSPG---STTKQVYTKVLCKE 286  
Db 283 PSDTALVSHFDIYLTGASGCVYFLTVQPE--TPGVAINSGADLFTTSIVLCKD 340  
Qy 287 DTAFNSYVEVPICGERSGVEYRLLOAAVLSKAGAVLGRITGVHPDDLLFTVFSKQQRK 346  
Db 341 DPKFHSYVSLPFGCTFRAGVEYRLLOAAVLSKAGAVLGRITGVHPDDLLFTVFSKQQRK 400  
Qy 347 MKSLDESALCFILKQINDRIKRLQSCYGBEGTLDLAWLKVADICSSALLTIDNPGC 406  
Db 401 HHPDDSCALCFIPRAINLQIKERLQSCYGBEGTLDLAWLKVADICSSALLTIDNPGC 460  
Qy 407 LDMNAPLVSDMVRGIPFTEDRDRTSVIAYVYKNSLAFVGTSGKLRKRVDPGRN 466  
Db 461 LDINQPLGSGTPVEGLTYTTSRDRMTSVASYVNGSVVFGTSGKLRKRV----- 514  
Qy 467 ALQYE-----TVQVVDPGPVLRDMAFSK-DHEQLYIMSERQ 501  
Db 515 ---YEFRCNMLHLKSKESLLEGSYWMRFNRYQLYFLGEQR 552

RESULT 8  
US-09-907-841-170  
Sequence 170, Application US/09907841  
Publication No. US20020198366A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvarole, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gertsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gunney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kljavin, Ivar J.  
APPLICANT: Maher, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
ACIDS  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/907, 841  
PRIOR FILING DATE: 2001-11-20  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143, 048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145, 698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146, 222

Qy 103 TFMHLTVHGTGAVYGAIRNRYKLTGNLTIOVAHKTGPEDNKSRYPLIYQPCSEVLT 162  
Db 163 LTNVNNKMLLDYKENVLLACGSIYOGICCKLRLEDLFLKGPYHKKHLYLGSVNSGSV 222  
Qy 170 FGVIVSYSLDDKLFIAVAVDGKPEYPTISSRKLTKNSPADGMFAVYHDEFAVSMIT 229  
Db 223 YGVIVRSEGEDGKLFITAVDGKODYPTLSSRKLPRDPSSAMLYELHSDVSSILIKI 282  
Qy 230 PSDFTIIPBDIYVYVGSFGSNFVYLTLPQEWSPG---STTKQVYTKVLCKE 286  
Db 283 PSDTALVSHFDIYLTGASGCVYFLTVQPE--TPGVAINSGADLFTTSIVLCKD 340  
Qy 287 DTAFNSYVEVPICGERSGVEYRLLOAAVLSKAGAVLGRITGVHPDDLLFTVFSKQQRK 346  
Db 341 DPKFHSYVSLPFGCTFRAGVEYRLLOAAVLSKAGAVLGRITGVHPDDLLFTVFSKQQRK 400  
Qy 347 MKSLDESALCFILKQINDRIKRLQSCYGBEGTLDLAWLKVADICSSALLTIDNPGC 406  
Db 401 HHPDDSCALCFIPRAINLQIKERLQSCYGBEGTLDLAWLKVADICSSALLTIDNPGC 460  
Qy 407 LDMNAPLVSDMVRGIPFTEDRDRTSVIAYVYKNSLAFVGTSGKLRKRVDPGRN 466  
Db 461 LDINQPLGSGTPVEGLTYTTSRDRMTSVASYVNGSVVFGTSGKLRKRV----- 514  
Qy 467 ALQYE-----TVQVVDPGPVLRDMAFSK-DHEQLYIMSERQ 501  
Db 515 ---YEFRCNMLHLKSKESLLEGSYWMRFNRYQLYFLGEQR 552

RESULT 9  
US-09-904-011-170  
Sequence 170, Application US/09904011  
Publication No. US2003000350A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
ACIDS  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/904, 011  
PRIOR FILING DATE: 2001-11-20  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143, 048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145, 698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146, 222

APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerritsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gurney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavini, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/904,011  
CURRENT FILING DATE: 2001-07-11  
PRIOR APPLICATION NUMBER: 09/665,350  
PRIOR FILING DATE: 2000-09-18  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/21547  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/22089  
PRIOR FILING DATE: 1999-10-05  
PRIOR APPLICATION NUMBER: PCT/US99/28214  
PRIOR FILING DATE: 1999-11-29  
PRIOR APPLICATION NUMBER: PCT/US99/28313  
PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 170  
LENGTH: 552  
TYPE: PRT  
ORGANISM: Homo Sapien  
US-09-904-011-170

Query Match 13.5%; Score 1351.5; DB 11; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3,4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;  
23 STUTROPAPLSOKR-----SPTTRGPAP- 49  
|||||:|

Db 45 SLLT--AAPLSNEQOPMPRLLEVDKRSVLLSVYVWLLAPPAKMPQSTFHSERDM 102  
Qy 50 GFNHLVYDERTGHTLYGAVNRIYKLSDDLKVLVTEHTEGDEDNPKCYPRIVQTCNEPLT 109  
Db 103 TFNHLTVHQTGAVVYGAINRIVYKLTGNLTIQVAKHTGPEEDNKSRYPPLIVQPCSEVLT 162  
Qy 110 TTNVVKMLIDYKERRLLACGSIYOGICLRLLEDLPFGPKPKKHHYLSGVNBSGSV 169  
Db 163 LTNVVKMLIDYSEKRLACSLYGVCKLRLDDLPFLVPSHKKEHLYSSVKTGTW 222  
Qy 170 FGIVASVSNLDDTLFATAVDGKPEYFPTISSRKLTKNSEADQMPAYVHDFEFAVMKI 229  
Db 223 YGVIVASEGDEGLFGTAVDGKQDYFPTLSRKLPREDSSAMLDYELHSDVFSLLIKI 282  
Qy 230 PSPTFTIIPDPDIYVYFGSSGNFYVFLLOEMNSPPG---STKQVYTSKVLVCKE 286  
Db 283 PSDTLALVSHFDIFYIYGFASGGFYVFLVQPE--TPGEVAINSGDLFYTSRIVRLCKD 340  
Qy 287 DTAFSNVVEYPIGSESGVEYRLQAAVYLSKAGAVLGRITGVHPDDLLFTVFSKQGRK 346  
Db 341 DPKFHSVSLPFCCTAGVBYRLQAAVYLAKEGDSLAQAFNITSGDVLFAIFSKQGRK 400  
Qy 347 MKSLDSALCTFLKQINDRIKRLQSCYRGSTDLAHLKXKDIKCSALLTIDNPG 406  
Db 401 HHPDDSALCAFEIRAINQIKERLQSCYQGBGNLEMLLCKDQCTYAPVPIIDNPG 460  
Qy 407 LDMNAPLGVSDWVRGIPVTEDEDRMTSVIAYVYKNSIAFYQTSKGLKXIRVDGPRGN 466  
Db 461 LDINQPLGSGTPEGLITVITTSXDRMTSVASIVYNGSYVVFQTSKGLKXIRV----- 514  
Qy 467 ALQYE---TVQVDPGPVLRDMAFSK-DHEQLYMSERQ 501  
Db 515 ---YEFRCNAIHLKSKESLLEGSYWMRFYRQLYFLGBOR 552  
RESULT 10  
US-09-906-742-170  
Sequence 170, Application US/09906742  
Publication No. US20030023054A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerritsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gurney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavini, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/906,742  
CURRENT FILING DATE: 2001-07-16  
PRIOR APPLICATION NUMBER: 09/665,350  
PRIOR FILING DATE: 2000-09-18  
PRIOR APPLICATION NUMBER: PCT/US00/04414

PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/21547  
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PRIOR APPLICATION NUMBER: PCT/US99/23089  
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PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
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PRIOR FILING DATE: 1999-12-16  
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PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 170  
LENGTH: 552  
TYPE: PRT  
ORGANISM: Homo Sapien  
US-09-906-742-170

Query Match 13.5%; Score 1351.5; DB 11; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3,4e-114;

Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

23 STLTROPAPLPSOKOR-----SFTVFRGEPAR 49  
45 SRIIT--APLSMEQOPWPRALAEVDSRSVLLSVWVLLAPPAAGMPQSFTHSENRM 102  
50 GPNHLYVDERTGHIYAGVNRITKSSDLKAVLTHETGPEDEPNKCIYPRIVQTCNEPT 109  
103 TPNHLYVHOGTGVAVYGAIRVYKLTGNLTIOVANHKTGEBEDKSRYPPLIVQPCSEVLT 162  
110 TTNVNNKMLIDKXERNLACSLYOGICLRLLEDLFKGPYHKKEXYLSGVNESGSV 169  
163 LTNVNNKMLIIDYSENRLACSLYOGVCLLDDLFIVESHKEXYLSVYKNTGM 222  
170 FGIVTYSNLDLFLATAVDGKEYPPTSSKRLTKNSEADGMFAVYHDEFAVMKI 229  
223 YGVIVSEGEDGKLFITAVDGKODYFPTLSSRKLPRDESSAMLDYELHSPVSSLIKI 282  
230 PSRTFTIIPFDIYVYVYVSGSNFVFLTQPEMVSPPG---STTEQVYTSKLVLVLC 286  
283 PSRTLAIHGFDFIYVYVYVSGSNFVFLTQPE--TPRGVAINSADLTYSRIYVLC 340  
287 DTAENSVEVPIGERSGVYRLLQAAVYSKAGAVLGRLLGVHPDDLLFTVFSKQOKX 346  
341 DPKFHSVYSLPFGCTAGVYRLLQAAVYLAQPDGSLAQAFAFNITSQDDVFAIFSKQOKX 400  
347 MKGLDESLCITFIKQNDRIKXERLSCVGEGLTDLAMVXVDICSSALLTIDNPG 406  
401 HHPDDSLCAFPFRAINLOIKERLSCVGEGLTDLAMVXVDICSSALLTIDNPG 460  
407 LDMNAPLGVSDMVRGIPVFTEDRDMTSVIAYVYKXSLAFVGTSGKGLKLRVDPGRN 466

DB 461 LDIHQPGSGTPEGLLYTTSRDRMTSVASVYNGSVVFGTKSGKLRV----- 514  
QY 467 ALGYE-----TVGVDPGPVLRDMASF-K-DHEQLYIMSERQ 501  
DB 515 ---YEFRCNAIHLISKESLBSGYMRFYRQLYFLGEOR 552

RESULT 11  
US-09-906-838-170  
Sequence 170; Application US/09906838  
Publication No. US20030027142A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Deenoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerritsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gurney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavrin, Ivar J.  
APPLICANT: Macher, Dennis P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
TITLE OF INVENTION: Acids Encoding the Same  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/906,838  
CURRENT FILING DATE: 2001-07-16  
PRIOR APPLICATION NUMBER: 09/665,350  
PRIOR FILING DATE: 2000-09-18  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/21547  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/23089  
PRIOR FILING DATE: 1999-10-05  
PRIOR APPLICATION NUMBER: PCT/US99/28214  
PRIOR FILING DATE: 1999-11-29  
PRIOR APPLICATION NUMBER: PCT/US99/28313  
PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16

PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 170  
LENGTH: 552  
TYPE: PRT  
ORGANISM: Homo Sapien  
US-09-906-838-170

Query Match 13.5%; Score 1351.5; DB 11; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3.4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

QY 23 STLTTRQAPALISQOKR-----SFTFRGEPAE- 49  
DB 45 SRLLT--AAPLSMEQRPMPRALEVDRSVLLSVVWVLLAPPAAGMPQSTFHSERDW 102  
QY 50 GFNLVYDERTGHIYAGVNRITYKLSDELKVLVTHETGPDENPKCYPPRIYQTCNEPLT 109  
DB 103 TPNHLVHOGTGAIVYGAIRVYKLTGNLTIOVAHKTPREDNKSRYPLIVQCSYVLT 162  
QY 110 TTNNVNMKLLIDYKENRLIAGSLYOGICLLEDEFLKGEPRYHKKHYLSGVNBSGV 169  
DB 163 LTNVNMKLLIIDYSENRLLACSLYQGVCKLRDLDFLIVPSHKKHYLSVNMKTGM 222  
QY 170 FGVYISVSLDMLFLATVNDGKPEYPTISSRKLTKNSEADGMAYVHFDEFVSMKI 229  
DB 223 YGVYISBEGDKLFGTAVDGRKODYFPLSSRKLPREDSSAMLYEHSFVSLSKI 282  
QY 230 PSQTFIIPDFIYVYVYSGNFYFLTLQPEMVSPPG---STKEQVYTSKLVRLCKE 286  
DB 283 PSQTLALVSHFDIFLYFGASGGFYFLTVQPE--TPESVALNSAGDLFEYTSRIVRLCKD 340  
QY 287 DTAENYVEYPTGCEHSGVYRLLQAYISKAGVLRGLVHPDDLLFTVFSGQKRX 346  
DB 341 DPEFHSYSLPEFCTAGVGYRLLQAYIAKPDSTLAQFNITSODVLFALFSGQKQY 400  
QY 347 MKSLDESALCIFILKOINDRIKERLOSQYRGSEGLDLAMLYKVIDIPCCSALLTIDNFCG 406  
DB 401 HHPDDSALCAPIFIRAINIQIKERLOSQYRGSEGLDLAMLYKVIDIPCCSALLTIDNFCG 460  
QY 407 LDMNALGVSDMVRGIPVTEDEDRMTSYIAYYKXSLAFVGTSGKLRKIRVQSPKRN 466  
DB 461 LDINQPLGGSTPVEGLTLVYTSRDMTSVASYVYNGSVVFGTSGKLRKIRV----- 514  
QY 467 ALQYE-----TVQVDPGPLYRDMAFSK-DHEQLYIMSERQ 501  
DB 515 ---YEFRCNSAIIHLKESLLEBSYWMFRNYRLVLYLGROR 552

RESULT 12  
US-09-907-613-170  
Sequence 170, Application US/09907613  
Publication No. US20030027145A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Geo, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Geritsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.

APPLICANT: Gurney, Austin L.  
APPLICANT: Hillan, Kenneth J.  
APPLICANT: Kijavitt, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/907,613  
CURRENT FILING DATE: 2001-07-17  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
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PRIOR APPLICATION NUMBER: PCT/US99/20944  
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PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 170  
LENGTH: 552  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-09-907-613-170

Query Match 13.5%; Score 1351.5; DB 11; Length 552;  
Best Local Similarity 51.6%; Pred. No. 3.4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

QY 23 STLTTRQAPALISQOKR-----SFTFRGEPAE- 49  
DB 45 SRLLT--AAPLSMEQRPMPRALEVDRSVLLSVVWVLLAPPAAGMPQSTFHSERDW 102  
QY 50 GFNLVYDERTGHIYAGVNRITYKLSDELKVLVTHETGPDENPKCYPPRIYQTCNEPLT 109  
DB 103 TPNHLVHOGTGAIVYGAIRVYKLTGNLTIOVAHKTPREDNKSRYPLIVQCSYVLT 162  
QY 110 TTNNVNMKLLIDYKENRLIAGSLYOGICLLEDEFLKGEPRYHKKHYLSGVNBSGV 169  
DB 163 LTNVNMKLLIIDYSENRLLACSLYQGVCKLRDLDFLIVPSHKKHYLSVNMKTGM 222





GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvarolf, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gertlisen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Guiney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavlin, Ivar J.  
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APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
Acids Encoding the Same  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/904,859  
CURRENT FILING DATE: 2001-07-12  
PRIOR APPLICATION NUMBER: 09/665,350  
PRIOR FILING DATE: 2000-09-18  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
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PRIOR FILING DATE: 1999-11-29  
PRIOR APPLICATION NUMBER: PCT/US99/28313  
PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 170  
LENGTH: 552  
TYPE: PRT  
ORGANISM: Homo Sapien  
US-09-904-859-170

Query Match 13.5%; Score 1351.5; DB 11; Length 552;  
Best Local Similarity 51.6%; Fred. No. 3.4e-114;  
Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;  
23 STLLTRQAPAPLSOKOR-----SEVTRGEPAP- 49  
45 SRLLT--APLSMEQGPMPRALAEVDSRSVLLSVVLLAPPAGMPQSFTHSENMD 102  
50 GGNHLYVDERTGHIYGAIVKRLKSSDLKVLVTHETGDEDNPKYPRIVOTCNEPLT 109  
103 TPNHLTVHOGTGVAVYGAIVKRLKGNLTQVAHRTGPEEDKSRYPYLPVPCSEVLT 162  
110 TTANNVMTLIDPKERLACSLYOGICLTLREDFLFGEPYHKKHLYSGVNSGV 169  
163 LTNVNMKLLIIDSERLLACSLYGVCKLRLDLDLFLIVESSHKEHLYSVNKTGM 222  
170 FGVIYSYSLNDDYFLATVADGKPEYFPTISGRKLTNSHADGMFAVHDEVAAMIKI 229  
223 YGVIVSEGEHDKLFLGTAVDGKDYFPTLSRKLPRDESSAMLDYELHSDVSSLIKI 282  
230 PSDFTIIPDDIYVYVGFSGNPFYFLTQPEMWSPPG---STKEQVTSKLVLCKE 286  
283 PSDTLAVSHFDIPIYIGFASGGFYFLTYQPE--TPGVAINAGDLPYTSRLVLCND 340  
287 DTAENSYEVPICGERSGVEYRLLQAAVYSKAGAVIGRTGVHPDDDLFTVFSKQCKR 346  
341 DPKHSHYSVLPFCSTRAGVYRLLQAAVYLAKPDSLAQFNITSODVIFALFSKQCKY 400  
347 MKSLDESLCITFLIKNDIKERLQSCYGEGLDPLAMKVNDIPCSALLTIIDNFCG 406  
401 HEPDSDALCAFPRLALNQLKERLQSCYGEGLNMLGDDVQCTAPVPIIDNFCG 460  
407 LDNMAPLVGSDMYRGIPVFTEDDRMTSVIAYYKNSLAFAVGTGKGLKKIIVDGRGN 466  
461 LDINQPLGSGTPEVGLFLYTSRDRMTSVASVYVGVGTGSKLKKVYV----- 514  
467 ALQYE-----TVQVVDGCVLRDMANSK--DHEGLYMSERO 501  
515 ---YFRCSNALHLSKESLBSGYMKRFYRQVFLGEGR 552  
RESULT 15  
US-09-909-204-170  
Sequence 170: Application US/09909204  
Publication No. US20030036061A1  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvarolf, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gertlisen, Mary E.  
APPLICANT: Goddard, A.  
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APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Guiney, Austin L.  
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APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic

TITLE OF INVENTION: Acids Encoding the Same  
 FILE REFERENCE: 10466-14  
 CURRENT APPLICATION NUMBER: US/09/909,204  
 CURRENT FILING DATE: 2001-07-18  
 PRIOR APPLICATION NUMBER: PCT/US00/04414  
 PRIOR FILING DATE: 2000-02-22  
 PRIOR APPLICATION NUMBER: US 60/143,048  
 PRIOR FILING DATE: 1999-07-07  
 PRIOR APPLICATION NUMBER: US 60/145,698  
 PRIOR FILING DATE: 1999-07-26  
 PRIOR APPLICATION NUMBER: US 60/146,222  
 PRIOR FILING DATE: 1999-07-28  
 PRIOR APPLICATION NUMBER: PCT/US99/20594  
 PRIOR FILING DATE: 1999-09-08  
 PRIOR APPLICATION NUMBER: PCT/US99/20944  
 PRIOR FILING DATE: 1999-09-13  
 PRIOR APPLICATION NUMBER: PCT/US99/21090  
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 PRIOR APPLICATION NUMBER: PCT/US99/28313  
 PRIOR FILING DATE: 1999-11-30  
 PRIOR APPLICATION NUMBER: PCT/US99/28564  
 PRIOR FILING DATE: 1999-12-02  
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 PRIOR APPLICATION NUMBER: PCT/US99/30911  
 PRIOR FILING DATE: 1999-12-20  
 PRIOR APPLICATION NUMBER: PCT/US99/30999  
 PRIOR FILING DATE: 1999-12-20  
 PRIOR APPLICATION NUMBER: PCT/US00/00219  
 PRIOR FILING DATE: 2000-01-05  
 NUMBER OF SEQ ID NOS: 423  
 SEQ ID NO 170  
 LENGTH: 552  
 TYPE: PRT  
 ORGANISM: Homo sapiens  
 US-09-909-204-170

Query Match 13.5% Score 1351.5; DB 11; Length 552;  
 Best Local Similarity 51.6%; Pred. No. 3.4e-114;  
 Matches 269; Conservative 81; Mismatches 116; Indels 55; Gaps 8;

23 STLLTRQAPAPLSCOR-----SFTVTRGEPAP- 49  
 45 SRIILT--AAPLSWEGQRPWPALEVDRSVLLSVVWVLLAPPAGMPQSTFHSNRDW 102  
 50 GHHLVVDERTGHIYVAVNRITKSSDLKAVYTHETGPDENPKCYPRIVOTCNEPLT 109  
 103 TFEHLTVHOGTGAIVGAINRVKLTGNLTIOAHKTGPEBDKSRYPPLIVQPCSEVLT 162  
 110 TTNVNVKMLLDYKENRLIACGSLYOGICKLRLLEDLFLGEPYHKEHYLSGVNCSGV 169  
 163 LTNVNVKMLIIDSENRLLACGSLYGVCKLRLDPLFLVPSHKEHYLSVNTGTGM 222  
 170 FGIYVYSNLDLKLATAVDGKPEYFPTISSKRLTKNSEADQMFRAYVPHDEFVASMIXI 229  
 223 YGVIVSEGEDEGLFTGTAVDGKQDYFPTLSSKRLPRDESSAMLDYELHSDVFSLSLXI 282  
 230 PSDFTIIPDFDIYVYVYGFSGNFVFLTLOPEMVSPG---STKEQVYTSKLVRLCKE 286  
 283 PSDTLALVSHFDLFYVGFASGGFYVFLTVQPE--TPGVAINSAGDLFTYSRIVRLCKD 340  
 287 DTFANSYVEVPICGERSGVYRLLQAAVYLSKAGAVIGRTLGVPDDDLFTVFSKGQKK 346  
 341 DPFHSYVSLPFGCTRAGVAYRLLQAAVYLAQPDGSLAQAFFITSDVDVFAIFSKGQKKY 400

347 MKSLDESALCIFILKQINDRIKERLOSCKRGEGTLDLAWLKVDIFCSSALLTIDNFCG 406  
 401 HHPPDDSLCAFPFIRAINLQIKERLOSCKRGEGNLEINWLLGKDVQCTKAPVIDDNFCG 460  
 407 LDMNAPGVSDMVRGIFVTFEDRDMTSVLAAYYKXHSIAFVGTSGKXKRIKIVDGPGRN 466  
 461 LDINQPLGSSTPVEGLTLYTSRDMTSVASIYVNGISVVFVGKSGKLRKAV----- 514  
 467 ALQYE---TVQVVDGPVLRDMAFSK-DHEQLYIMSERQ 501  
 515 ---YEFRCNAIHLSKESLLEGSYWMRFYRQLYFLAGEQR 552

Search completed: February 18, 2004, 16:47:46  
 Job time : 53 secs

GenCore version 5.1.6  
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## OM protein - nucleic search, using frame\_plus\_p2n model

Run on: February 20, 2004, 09:36:12 / Search time 196 Seconds

(without alignments)  
5368.300 Million cell updates/sec

Title: US-09-964-956-13

Perfect score: 9990

Sequence: 1 MKAMPWNWTCILSHLIMVGM.....QKAYKQVITLMSLSGNK 1896

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Ygapop 10.0	Ygapext 0.5
Fgapop 6.0	Fgapext 7.0
Delop 6.0	Delext 7.0

Searched: 682709 seqs, 277475446 residues

Total number of hits satisfying chosen parameters: 1365418

Minimum DB seq length: 0  
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Maximum Match 100%

Listing first 45 summaries

## Command line parameters:

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-Q=/cgn2\_1/USPTO.spool/US09964956/runtat.18022004.143751.21293/app\_query.fasta.1.2055  
-DB=Issued Patents NA -OPMT=fastap -SUFFIX=rml -MINMATCH=0.1 -LOOPEL=0  
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-USRR=US09964956@cgn2\_1.1.75 -runtat.18022004.143751.21293 -NCPU=6 -ICPU=3  
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-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

## Database:

Issued Patents NA.\*  
1: /cgn2\_6/prodata/2/ina/5A.COMB.seq.\*  
2: /cgn2\_6/prodata/2/ina/5B.COMB.seq.\*  
3: /cgn2\_6/prodata/2/ina/6A.COMB.seq.\*  
4: /cgn2\_6/prodata/2/ina/6B.COMB.seq.\*  
5: /cgn2\_6/prodata/2/ina/PTUS.COMB.seq.\*  
6: /cgn2\_6/prodata/2/ina/backfillseq.\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1359.5	13.6	2477	4	US-09-907-794A-169 Sequence 169, App
2	1359.5	13.6	2477	4	US-09-905-125A-169 Sequence 169, App
3	1359.5	13.6	2477	4	US-09-902-775A-169 Sequence 169, App
4	1349	13.5	4707	3	US-09-181-706-1 Sequence 1, Appl
5	1349	13.5	4707	3	US-09-458-791-1 Sequence 1, Appl
6	1349	13.5	4707	3	US-09-459-066-1 Sequence 1, Appl
7	1349	13.5	4707	4	US-09-459-065-1 Sequence 1, Appl
8	657	6.6	3458	4	US-09-023-655-603 Sequence 603, App
9	629.5	6.3	4626	1	US-08-306-691B-22 Sequence 22, Appl
10	629.5	6.3	4626	5	PCT-US93-06251-27 Sequence 27, Appl
11	323	3.2	2433	4	US-09-300-958A-24 Sequence 24, Appl
12	263	2.6	3524	4	US-09-077-940A-3 Sequence 3, Appl

13	244.5	2.4	3692	4	US-09-077-940A-1 Sequence 1, Appl
14	228.5	2.3	3694	4	US-09-653-274-3 Sequence 3, Appl
15	228	2.3	3261	4	US-09-653-274-5 Sequence 5, Appl
16	227	2.3	2670	1	US-08-121-713D-61 Sequence 61, Appl
17	227	2.3	2670	1	US-08-835-268-61 Sequence 61, Appl
18	227	2.3	2670	2	US-09-060-692-61 Sequence 61, Appl
19	227	2.3	2670	3	US-08-833-391-61 Sequence 61, Appl
20	227	2.3	2670	3	US-09-060-610-61 Sequence 61, Appl
21	227	2.3	2670	5	PCT-US94-10151A-61 Sequence 61, Appl
22	220	2.2	1923	4	US-09-653-274-12 Sequence 12, Appl
23	216.5	2.2	1024	4	US-09-328-475C-37 Sequence 37, Appl
24	207	2.1	2854	4	US-08-121-713D-57 Sequence 57, Appl
25	207	2.1	2854	2	US-08-835-268-57 Sequence 57, Appl
26	207	2.1	2854	2	US-09-060-692-57 Sequence 57, Appl
27	207	2.1	2854	3	US-08-833-391-57 Sequence 57, Appl
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31	200	2.0	2601	1	US-08-835-268-53 Sequence 53, Appl
32	200	2.0	2601	2	US-09-060-692-53 Sequence 53, Appl
33	200	2.0	2601	3	US-08-833-391-53 Sequence 53, Appl
34	200	2.0	2601	4	US-09-060-610-53 Sequence 53, Appl
35	200	2.0	2601	5	PCT-US94-10151A-53 Sequence 53, Appl
36	192.5	1.9	3560	1	US-08-121-713D-59 Sequence 59, Appl
37	192.5	1.9	3560	1	US-08-835-268-59 Sequence 59, Appl
38	192.5	1.9	3560	2	US-09-060-692-59 Sequence 59, Appl
39	192.5	1.9	3560	3	US-08-833-391-59 Sequence 59, Appl
40	192.5	1.9	3560	3	US-09-060-610-59 Sequence 59, Appl
41	192.5	1.9	3560	5	PCT-US94-10151A-59 Sequence 59, Appl
42	192	1.9	4157	4	US-08-556-422A-1 Sequence 1, Appl
43	186.5	1.9	2504	1	US-08-121-713D-63 Sequence 63, Appl
44	186.5	1.9	2504	1	US-08-835-268-63 Sequence 63, Appl
45	186.5	1.9	2504	2	US-09-060-692-63 Sequence 63, Appl

## ALIGNMENTS

RESULT 1  
US-09-907-794A-169 Application US/09907794A  
Sequence 169, Patent No. 6635468  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Deamoys, Luc  
APPLICANT: Eason, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Flivarov, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerritsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Guirney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavlin, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/907,794A  
CURRENT FILING DATE: 2001-07-17  
PRIOR APPLICATION NUMBER: PCT/US00/04414



QY 475 1ValasProglIyProvalleuArgasPmelaPheSerlys--AspHisGluGlnLe 494  
Db 2241 CCTCGCAAGAGTCCCTTGGAGAGTATTGGAGATTACTATAGGCAACT 2300  
QY 494 UTYrileMetSerGluArgGln 501  
Db 2301 TTATTTCTTGGGGAACAAGG 2322

RESULT 2  
US-09-905-125A-169  
Sequence 169, Application US/09905125A  
Patent No. 6664376  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gjeritsen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Guiney, Austin L.  
APPLICANT: Hillan, Kenneth, J.  
APPLICANT: Kijavitt, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Paoni, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Thomas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
Acids Encoding the Same  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/905,125A  
CURRENT FILING DATE: 2001-07-12  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143,048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145,698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146,222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/21547  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/23089  
PRIOR FILING DATE: 1999-10-05  
PRIOR APPLICATION NUMBER: PCT/US99/28214  
PRIOR FILING DATE: 1999-11-29  
PRIOR APPLICATION NUMBER: PCT/US99/28313  
PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20

PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 169  
LENGTH: 2477  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-905-125A-169

Alignment Scores:  
Pred. No.: 8.8e-138 Length: 2477  
Score: 1359.50 Matches: 271  
Percent Similarity: 69.88% Conserved: 84  
Best Local Similarity: 53.35% Mismatches: 124  
Query Match: 13.61% Indels: 31  
Gaps: 7

US-09-964-956-13 (1-1896) x US-09-905-125A-169 (1-2477)

QY 5 ProTrpAsnThrPhrCysLeuLeuSerHisLeuLeuMetValGlyMetGlySerSerThr 24  
Db 857 CCTCGAGAGTGGAGACGGCGCTGTG-GTCTGCTCTCAAGT-GGTGGGTGCTGCT--- 911

QY 25 LeuLeuThrArgGlnProAlaProLeuSerGlnLysGlnArgSer-PheValThrPheAr 44  
Db 912 -----GGCCCCCGAGCGCGGCGATGCTGACTGACGACCTTCCA 953

QY 44 GGLYGLuProAlaGlu---GlyPheAsnHisLeuValAlaAspGluArgThrGlyHis11 63  
Db 954 CTCTGAGAAATCGTACGTCGACCTTCAACCACTGACGTCACCAAGAGCGGGCGCT 1013

QY 63 eTYrLeuGlyAlaValaAsnArgIleTYrLysLeuSerSerAspLeuLysValaValm 83  
Db 1014 CTATGTGGGGCCATCAACCGGGCTATTAAGCTGACGCGCACTGACCACTGACGAGTGC 1073

QY 83 rHisGluThrGlyProAspGluAspAsnProLysCysTYrProProArgIleValGlnTh 103  
Db 1074 TCAATAAGCAGGGCCAGAAAGACAAAGCAAGTCTGTTACCCGCCCTCATCTGACGCC 1133

QY 103 rCysAsnGluProLeuThrThrThraAsnValaAsnLysMetLeuLeuLysTYrLys 123  
Db 1134 CTGCAGCGAAGTGTCTACCCCTCAACCAATGTCAACAGCTGTCTATTAAGTATCTC 1193

QY 123 sGluAsnArgLeuLeuAlaCysGlySerLeuTYrGlnGlyLLeCysLysLeuLeuArgLe 143  
Db 1194 TGAAGAACCGCTGTGCTGTGGAGCTGTTCACAGGGGGTCTGCAAGCTGTCTGGCT 1253

QY 143 uGluAspLeuPheLysLeuGlyGluProTYrHisLysLysGluHisTYrLeuSerGlyVa 163  
Db 1254 GGATGACCTCTTCACTCCGTGGAGCCATCCCAAGAGAGACATACCTGTCTCACTGT 1313

QY 163 lAsnGluSerGlySerValaPheGlyValIleValSerTYrSerAsnLeuAspLysLe 183  
Db 1314 CAACAAGCGGGACCAATGACGGGGGTATGTGCTCTGAGGGGTAGAGATGGCAAGCT 1373

QY 183 uPheIleAlaThrAlaValaAspGlyLysProGluTYrPheProThrIleSerSerArgLy 203  
Db 1374 CTTCATCGGACGGCTGTGATGGAGAGGAGATTACTTCCCGACCTGTCCACCGGAA 1433

QY 203 sLeuThrLysAsnSerGluAlaAspGlyMetPheAlaTYrValPheHisAspGluPheVa 223  
Db 1434 GCTGCCCGGACCCCTGATCTCAGCCATGCTGAGCTATGAGTACACGCGATTTGT 1493

QY 223 lAlaSerMetIleLysIleProSerAspTrnPheThrIleLeuProAspPheAspIleTY 243  
Db 1494 CTCTCTCTCATCAAGATCCTTGAACACCCCTGGCCCTGTCTCCACATTTGACATCTT 1553

QY 243 rTYrValTYrGlyPheSerSerGlyAsnPheValTYrPheLeuThrLeuGlnProGluMe 263  
Db 1554 CTACATCAACGCTTTGTCTAGTGGGGCTTTGTCTACTTCTCACTGTCCAGCCGAG-- 1611

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QY 263 tValSerProxiGly-----SerThrThrLeuGluGlnValTyrThrSerLeu 280
Db 1612 ----ACCCCTGAGGGTGTGGCCATCACTCCGCTGGAGACCTCTTACCTCAGCAT 1667
QY 280 uValArgLeuGlyGluAspThrAlaPheAsnSerTyrValGluValProIleGlyCy 300
Db 1668 CCGGCGGCTCTGCAAGATGATGCCCAAGTCCACATCACTGCTCCGCGCTTGCGCTG 1727
QY 300 sGluAspSerGlyValGluTyrArgLeuGlnGlnAlaTyrLeuSerValAlaGlyVal 320
Db 1728 CACCGCGCGGGGGTGAATACCGCTCTGCAAGGCTCTTACCTGCGCAAGCTCGGCA 1787
QY 320 aValLeuGlyArgThrLeuGlyValHisProAspAspAlaLeuPheThrValPhe 340
Db 1788 CTCACCTGGCCAGGCTTCATATATCACCGACGACGATGACTCTTGGCATCTTCTC 1847
QY 340 rlySGlyGlyNlyArgGlyMetLysSerLeuAspGluSerAlaLeuGlyIlePheIle 360
Db 1848 CAAAGGCGCAAGACATATCACCGCCCGCATGCTGCTGCTGCTGCTGCTGCTGCTG 1907
QY 360 ulySGlnIleAsnAspArgIleGlyGluArgLeuGlnSerCysTyrArgGlyGluGly 380
Db 1908 CCGGCGCATCACTTGCATCATCAAGAGGCTGCAAGTCTGCTACACGCGGCAAGGCA 1967
QY 380 rleuAspLeuAlaTrpLeuLysValIleAspIleProCysSerSerAlaLeuLeuThr 400
Db 1968 CCGGAGGCTCACTGCTGCTGCTGCGGAGGACGCTCCAGTCAAGAGGCGCTGCTCC 2027
QY 400 eAspAspAsnAspCysGlyLeuAspMetAsnAlaProLeuGlyValSerAspMetVal 420
Db 2028 CCAATGATTACTTGTGGAGCTGATCAACAGCCCTCGGAGGCTCACTCCAGTGA 2087
QY 420 gGlyIleProValPheThrGluAspArgAspArgMetThrSerValIleAlaTyrVal 440
Db 2088 GGGCGCTGACCTGTACACACACACAGCGGAGCGGACGCTGCTGCGCTCTGAGTTA 2147
QY 440 rlySaenHisSerLeuAlaPheValGlyThrIleSerGlyLysLeuLysIleArgVa 460
Db 2148 CAACGGCTACAGCGTGTGTTTGTGGGACTAGAGCTGCAAGCTGCAAAAAGTAAAGT 2207
QY 460 lAspGlyProArgGlyAsnAlaLeuGlnTyrGlu-----ThrValGluVa 475
Db 2208 C-----TATAGTTTCAGANTGCTCCAAATGCCATTCACCT 2240
QY 475 lValAspProGlyProValLeuArgAspMetAlaPheSerLys---AspHisGluGly 494
Db 2241 CCTCAGCAAGAGTCCCTCTGTGAGAGTGTATGTTGTGTGAGATTTAATTAAGCACT 2300
QY 494 uTyrIleMetSerGluArgGln 501
Db 2301 TTATTTCTTGGGACAAAG 2322
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RESULT 3  
US-09-902-775A-169  
Sequence 169, Application US/09902775A  
Patent No. 6686451  
GENERAL INFORMATION:  
APPLICANT: Genentech, Inc.  
APPLICANT: Ashkenazi, Avi  
APPLICANT: Botstein, David  
APPLICANT: Desnoyers, Luc  
APPLICANT: Eaton, Dan L.  
APPLICANT: Ferrara, Napoleone  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Fong, Sherman  
APPLICANT: Gao, Wei-Qiang  
APPLICANT: Gerber, Hanspeter  
APPLICANT: Gerltzen, Mary E.  
APPLICANT: Goddard, A.  
APPLICANT: Godowski, Paul J.  
APPLICANT: Grimaldi, Christopher J.  
APPLICANT: Gurney, Austin L.  
APPLICANT: Hillan, Kenneth, J.

```
APPLICANT: Kljavin, Ivar J.  
APPLICANT: Mather, Jennie P.  
APPLICANT: Pan, James  
APPLICANT: Pecht, Nicholas F.  
APPLICANT: Roy, Margaret Ann  
APPLICANT: Stewart, Timothy A.  
APPLICANT: Tumas, Daniel  
APPLICANT: Williams, P. Mickey  
APPLICANT: Wood, William, I.  
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic  
Acids Encoding the Same  
FILE REFERENCE: 10466-14  
CURRENT APPLICATION NUMBER: US/09/902, 775A  
CURRENT FILING DATE: 2001-07-10  
PRIOR APPLICATION NUMBER: PCT/US00/04414  
PRIOR FILING DATE: 2000-02-22  
PRIOR APPLICATION NUMBER: US 60/143, 048  
PRIOR FILING DATE: 1999-07-07  
PRIOR APPLICATION NUMBER: US 60/145, 698  
PRIOR FILING DATE: 1999-07-26  
PRIOR APPLICATION NUMBER: US 60/146, 222  
PRIOR FILING DATE: 1999-07-28  
PRIOR APPLICATION NUMBER: PCT/US99/20594  
PRIOR FILING DATE: 1999-09-08  
PRIOR APPLICATION NUMBER: PCT/US99/20944  
PRIOR FILING DATE: 1999-09-13  
PRIOR APPLICATION NUMBER: PCT/US99/21090  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/21547  
PRIOR FILING DATE: 1999-09-15  
PRIOR APPLICATION NUMBER: PCT/US99/23089  
PRIOR FILING DATE: 1999-10-05  
PRIOR APPLICATION NUMBER: PCT/US99/28214  
PRIOR FILING DATE: 1999-11-29  
PRIOR APPLICATION NUMBER: PCT/US99/28313  
PRIOR FILING DATE: 1999-11-30  
PRIOR APPLICATION NUMBER: PCT/US99/28564  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/28565  
PRIOR FILING DATE: 1999-12-02  
PRIOR APPLICATION NUMBER: PCT/US99/30095  
PRIOR FILING DATE: 1999-12-16  
PRIOR APPLICATION NUMBER: PCT/US99/30911  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US99/30999  
PRIOR FILING DATE: 1999-12-20  
PRIOR APPLICATION NUMBER: PCT/US00/00219  
PRIOR FILING DATE: 2000-01-05  
NUMBER OF SEQ ID NOS: 423  
SEQ ID NO 169  
LENGTH: 2477  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-902-775A-169  
Alignment Scores:  
Pred. No.: 8.8e-138 Length: 2477  
Score: 1359.50 Matches: 271  
Percent Similarity: 69.88% Conservative: 84  
Best Local Similarity: 53.35% Mismatches: 124  
Query Match: 13.61% Indels: 31  
Gaps: 7  
US-09-964-956-13 (1-1896) X US-09-902-775A-169 (1-2477)  
QY 5 ProTyrAsnTrpThrCysLeuLeuSerHisLeuLeuMetValGlyMetGlySerThr 24  
Db 857 CCCTGAGAGTGAACAGCGCTGTGTG-GTCTGCTCACT-GGTCTGGGTGTGCTGCT--- 911  
QY 25 LeuLeuThrArgGlnProAlaProLeuSerGlnLysGlnArgSer-PheValThrPheAr 44  
Db 912 -----GGCCCCCGACGAGCGGCGGACGATCCCTCAAGTTCAGCACTTCCA 953
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QY 44 GGLYLUPROALGILU---GLYPHEASRHSILEUVALASPGLUAGTHRGILYHSIL 63  
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 QY 63 ETYRLEUGLYALVALASPARGLILETYRLEUSERSERAPLEULYSVALLEUVALTH 440  
 DB 1014 CTRATGAGGCGGACCAACCGGCTCTATAGCTGACAGCAACCTGACATCCAGGTGCC 2147  
 QY 83 RHISGLUHRGLYPROASPGLUASPARNPROLYSCSYLTPROPALAGLILEVALGINTH 460  
 DB 1074 TCATTAAGACAGGCGGACAGAGAGACAAAGCTGTTACCGGCCCTCATCGTGAGACC 2207  
 QY 103 RCYASANGILUPROLEUHTHTRTHASPARVALASMETLEULEULIASPYLY 475  
 DB 1134 CTGCACGAGAGTCTACCCCTCAACCAATCTCAACAGGCTGCTCATCTGACTATC 2240  
 QY 123 SGLUENARGLEULILEALCYAGLYSERLEUTYRGLNGLYILECYSLYSLEULEUARGLE 494  
 DB 1194 TGAAGAACCGCTGCTGCTGCTGAGAGCTCTACACGAGGCGGCTGCAAGCTGCGGCT 2300  
 QY 143 UGLUASPLEUPHELYSLEUGLYGLUPROLYRHISLYSLYSGILUHSYLYLEUSERYLYA 501  
 DB 1254 GATGACCTCTCATCTGCTGCTGAGAGCTCCCAAGAGAGAGCACTGCTGCTGCT 2322  
 QY 163 LANSGLUSERYLYSERVALPHEGLYVALILEVALISERTYRSERASPLEUASPLYSLE 510  
 DB 1314 CAACAAGAGCGGACCATCTACGAGGTGATGTGCGCTGAGAGGTGAGATGAGCACT 510  
 QY 183 UPHLEILEALATHRALVALASPLGLYSPROGLUHYRPHETPOTRILLESERARYLY 510  
 DB 1374 CTTCATCGGACGAGCTGTGATGAGAGAGAGGATTACTCCGACCTGCTGCAAGCGGAA 510  
 QY 203 SLEUTHIRLYASNSERGLUALASPGLYMETPHEALATYRVALPHEHISASPGLUPHEVA 510  
 DB 1434 GCTGCCCGAGACCTGAGTCTGAGCATGCTGAGCATGAGTACAGAGATTGCT 510  
 QY 223 LALASERMETILELYSILEPPOSERAPHTHRPHEHTRILELEPPOASPPHEAPLILETY 510  
 DB 1494 CTCCTCTCATCAATCACTCTTCAAGACACCTGCGCTGCTCCACTTGAATCTT 510  
 QY 243 RTYRVALITYRGLYPHESERSEGLYASNPHEVALTYRPHLEUTHRLUGLUPROGLUME 510  
 DB 1554 CTRACATCAAGCTTGTGCTAGTGGGGCTTGTCTACTTCTCACTGCGAGCCGAG-- 510  
 QY 263 LVALSERPROPGLY-----SERTHIRLYSGILUINVALTYRTHSERLYALE 510  
 DB 1612 ---ACCCCTGAGGGTGTGAGCCATCCGCTGAGAGCTCTTCTACCTCAAGCAT 510  
 QY 280 UVALARGLEUCYLYSGLUASPHRLAPHEANSERTYRVALGLUVALPROGLIYCY 510  
 DB 1668 CGTGGGCTCTGCAAGATGACCCCAAGTTCATCATGCTGCTGCTGCTGCTGCTG 510  
 QY 300 SGLUARGSERGLYVALGLUHYRARGLEUGLUALAATYRLEUSERLYSALGLYAL 510  
 DB 1728 CACCCGAGCGGGGTGAGATACCGCTCTGAGGCTGCTTACCTGCGCAACCTCGGGA 510  
 QY 320 AVALLEUGLYARGTHLEUGLYVALHISPROASPARASPLEUPEHETHRVALPHASE 510  
 DB 1788 CTCACCTGCGCCAGGCTCTCAATATCAACAGCAAGAGATGATCTTTGCTTCTC 510  
 QY 340 RLYSGILYGLNLYSARGLYSMETLYSERLEUPGJUSERIALEUCYSILPHEILELE 510  
 DB 1848 CAAGAGGAGAGAGACAGATACACACCGCCGAGTACTGCTGCTGCTGCTGCTGCT 510  
 QY 360 ULYSGLINLLEASPARGLILELYSGLUARGLEUNSERCYSTYRARGLYGLUGLYTH 510  
 DB 1908 CCGGCGCATCACTGAGATCAAGAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTG 510  
 QY 380 RLEASPLEUALATIRPLEULYSVALLYSAPLILEPPOCYSSERSEALILEUHTHRL 510  
 DB 1968 CTGAGAGCTCACTGCTGCTGCTGAGAGAGAGCTGAGAGAGAGAGAGAGAGAG 510  
 QY 400 EASPARASPNPHECYSLYLEUASPMETASNALIPROLEUGLYVALISERAPMETVALR 510

DB 2028 CGATGATTACTTCTGTGAGCTGACATCAACGAGCCCTCGGAGAGCTCAATCCAGTGA 2087  
 QY 420 GGLYLUPROVALPHEHTHGLUASPARGLIAPARGMETCTHSEVALILEALATYRVALY 440  
 DB 2088 GGCCCTGACCTGTACACCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2147  
 QY 440 RLYASMHISERLEUALPHEVALGLYTHIRLYSSEGLYLYSLEULYSLELYLEARGVA 460  
 DB 2148 CAACGCTACAGCTGCTGTTTCTGTGGGACTAAGACTGCGCAAGCTGAAAAAGSTAGAGT 2207  
 QY 460 LASPGLYPROARGLYASNALILEUINLYRGLU-----THVALGLINVA 475  
 DB 2208 C-----TATGAGTTCAGATGCTCCATGCAATGCCATTACCT 2240  
 QY 475 VALASPPROGLYPROVALLEULARGASPMETCALAPHESERLYS--ASPHEGLUINLE 494  
 DB 2241 CCTGAGCAAGAGTCCCTCTTGAAGAGTACTTGTGTGAGATTTAACTATAGGCACT 2300  
 QY 494 UTYRILEMETSERGLUARGLIN 501  
 DB 2301 TTATTTCTTGGGGAACAAAG 2322

RESULT 4  
 US-09-181-706-1  
 Sequence 1, Application US/09181706  
 Patent No. 6130068  
 GENERAL INFORMATION:  
 APPLICANT: Melanie K. Spriggs, Michael R. Comeau,  
 APPLICANT: Robert F. Dubose, Richard S. Johnson  
 TITLE OF INVENTION: VITAL ENCODED SEMAPHORIN PROTEIN  
 TITLE OF INVENTION: RECEPTOR DNA AND POLYPEPTIDES  
 NUMBER OF SEQUENCES: 10  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: Janis C. Henry  
 STREET: 51 University St.  
 CITY: Seattle  
 STATE: WA  
 COUNTRY: US  
 ZIP: 98101

COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Patent In Release #1.0, Version #1.30  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/09/181.706  
 FILING DATE: October 28, 1998  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 08/958,598 (converted to a  
 APPLICATION NUMBER: Provisional, see below)  
 FILING DATE: October 26, 1998  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: --to be assigned-- (USN 08/958,598  
 APPLICATION NUMBER: conversion to Provisional application)  
 FILING DATE: October 26, 1998  
 CLASSIFICATION:  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Henry, Janis C  
 REGISTRATION NUMBER: 34,347  
 REFERENCE/DOCKET NUMBER: 2631-A  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (206) 470-4189  
 TELEFAX: (206) 233-0644  
 INFORMATION FOR SRO ID NO: 1:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4707 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA



; HYPOTHETICAL: NO  
 ; ANTI-SENSE: NO  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: 1..4707  
 ; US-09-181-706-1

## Alignment Scores:

Pred. No.:	4,266-136	Length:	4707
Score:	1349.00	Matches:	480
Percent Similarity:	39.78%	Conservative:	291
Best Local Similarity:	24.77%	Mismatches:	591
Query Match:	13.50%	Indels:	576
DB:	3	Gaps:	74

US-09-964-956-13 (1-1896) x US-09-181-706-1 (1-4707)

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QY 72 TyrIleuSerSerAspLeuValIleuValThrHisgluThrArgIleProAspGluAsp 91
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DB 208 TACAGCCTGACGACACAGCCTCTCCGCGCTGACCGGACGACGAGCGGC----- 255
QY 92 AsnProLysCysTyrProProArgIleValGlnThrCysAsnGluProLeuThrThr 111
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 256 -----AACTGCACAGAGCGGCTCCGCTGGC 282
QY 112 -----AsnAsnValAsnIleuMetLeuIleuAspTyrLys 123
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 283 CCCCCCGGCGGCCCCCGGCGCGGACGCTTCAGCAAG---CTGCTGCTCCCTTACCGC 339
QY 124 GluAsnArg-----LeuIleAlaCysGlySerLeuTyrGlnGlyIle 137
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 340 GAGGGGGCGGCGCGCTCGGGGGCGCTGCTCCTCACCAGCTTGACCTTGACCGGGGGCGCC 399
QY 138 CysIleuLeuArgIleuGluAspLeuPheLysLeuGluIleProTyrHisLysLysGlu 157
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 400 TCGAGAGTGGCGCCCTCGGCACTG-----AGCCGCAAC 435
QY 158 HisTyrLeuSerGlyVal-----AsnGluSerGlySerValPheGlyVal 172
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 436 TCCCTGCGCAACGAGCAGAGTGGTGTGTCGCCACCGGACGCGCTGACGCGCGCGGT 495
QY 173 IleValSerTyrSerAsnLeuAspAspLysLeuHelIleAla----- 186
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DB 496 GTGTATCCGC---GCGGGCCGGAACAACCGCTGTATCTGCGCGTGGCCGCCACTTACGTG 552
QY 187 -----ThrAla 188
DB 553 CTGCCTGAGCGGAGACGCGGCGGCTGCAACCCCGCGCATCCGACGACGACGAGCGCC 612
QY 189 ValAspGlyLysProGluTyrPheProThrIleSerSerArgLysLeuThrLysAsnSer 208
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 613 ATCGGCTCAAGGACACGAGGCGGCGGCGCTGCGCAGCGAGCTGGGGCGCTCAAG 672
QY 209 GluAlaAspGlyMetPheAlaTyrValPheHisAspGluPheVal---AlaSerMetIle 227
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 673 CTGTGCGAGGGCGGCGGAGCGCTGACCTTCGTGACAGCGCTTCTCTGGAAACGAGAGATC 732
QY 228 LysIleProSerAspThrPheThrIleIleProAspPheAspIleTyrTyrValTyrGly 247
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 733 TACTTCCCC-----TACTACCCCTACAC 756
QY 248 PheSerSerGlyAsnPheValTyrPheLeuThrLeuGlnProGluMetValSerProPro 267
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 757 TATACGAGCGGC-----GTCGCCACCGGCTGCGCCACAGCATGCGCGCATGCG 804
QY 268 GlySerThrThrLysGluGlnValTyrThrseryLeuValArgLeuCysLysGluAsp 287
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 805 CAGAGCACCC-----GAG 816
QY 288 ThrAlaPheAsnSerTyrValGluValProIleGlyCysGluArgSerGlyValGlu--- 306
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 817 GTGCTGTTCCAGGC-----CAGGCATCCCTCAGACTCGGCGCACGCGCACCCCGAGCGC 870
  
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QY 307 TyrArgLeuLeuGlnAlaAlaTyrIleuSerLysAlaGlyAlaValLeuGlyArgThrIleu 326
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DB 871 CCGCGCGCTGCTCTCTCCGCTGACCGCTTACGAGCGC----- 906
QY 327 GlyValHisProAspAspLeuPheThrValPheSer-----LysGlyGlnLys 344
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 907 -----CTGACGCTCGGCGGAGGTTTCAGCGCGCGCGCGCTGAGAGCGC 951
QY 345 ArgLysMetLysSerLeuAspGluSerAlaLeuCysIlePheIleLeuLysGlnIleAsn 364
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 952 CAGGAGCGCGCGCTCCCGCACACGAGCGCGCTGCTGCTTCCAGATATGAGAGATCCAG 1011
QY 365 AspArgIleLysGluArgLeuGlnSerCysTyrArgGlyGlnGlyThrLeuAspLeuAla 384
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1012 GCGCGCGCCAGAG-----CTCAGC 1032
QY 385 Trp---LeuLysValIleAspIleProCysSerSerAlaLeuThrIleAspAspAsn 403
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DB 1033 TGGGACTTCAGACGCGCGGACGACGACCTGCAAGAGAGG----- 1071
QY 404 PheCysGlyLeuAspMetAsnAlaProLeuGlyValSerAspMetValArgGlyIlePro 423
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DB 1072 -----GATCAACT-----GAAAGTCCAAACCAATCCCA 1101
QY 424 ValPheThrGluAspArgAspArgMetThrSerValIleAlaTyrValTyrLysAsnHis 443
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DB 1102 TCATCTACTGATGCATTCGACCTGACCTGCTTATGAGCAGCGTGTATGAAACAGG 1161
QY 444 SerLeuAlaPheValGlyThrLysSerGlyLysLeuLysIleArgValAspGlyPro 463
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1162 ACTGTTTATTTGTTGGGACGTGAGAGTCCGACGTTTACGTTAAGGTATTTCTT- 1212
QY 464 ArgGlyAsnAlaLeuGlnTyrGluThrValGlnValAl----- 476
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DB 1213 ---GGGAGAAATTGACTTCAATTTGCCAGGTTATCTGAAATTAAGAAAGAGACA 1269
QY 477 -----AspProGlyProValIleuArgAspMetAlaPheSerLysAsp 490
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DB 1270 CCTGTTTCTACAACTCGTTCTGATCTCTGG-----AAG 1305
QY 491 HisGluGlnLeuTyrIleLeuSerGluArgGlnLeuThrArgValProValGluSerCys 510
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1306 AATATCTAATTATTTCTAACAGCTGGGAAAGAGTGAAGAGATTCGTGTTGCAAACTGC 1365
QY 511 GlyGlnTyrGlnSerCysGlyGluCysLeuGlySerGlyAspProHisCysGlyTyrCys 530
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QY 531 ValLeuHisAsnThrCysThrArgLysGluArgCysGluArgSerLysGluProArgArg 550
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DB 1426 CATTGCTTCAAAAGGTGCACTTTTCAAGAGATTGT----- 1461
QY 551 PheAlaSerGluMetLysGlnCysValArgLeuThrValHisProAsnAsnIleSerVal 570
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DB 1462 -----GTAACATTCAAGAACTTAANA--- 1482
QY 571 SerGlnTyrAsnValLeuLeuValLeuGluIleThrTyrAsnValProGluLeuSerAlaGly 590
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DB 1483 -----AACTGGCTGATATTTCTGCTGGA 1506
QY 591 ValAsnCysThrPheGluAspLeuSerGluMetAspGlyLeuValValGlyAsnGlnIle 610
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DB 1506 ----- 1506
QY 611 GlnCysTyrSerProAlaAlaLysGluValProArgIleIleThrGluAsnGlyAspHis 630
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DB 1528 -----CAGATATTTGAAAGCAGTAAAGAAAGACTACAGTACTATGTTGGGAAAGC 1578
QY 651 PheValPheTyrAsnCysSerValHisAsnSerCysLeu---SerCysValGluSerPro 669
  
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QY 1339 GluValProGlyTyrArgGlnGluArgValGluLysGlyLeuLysLeuPheAla----- 1356  
 DB 3124 -----CATACAGAGACCGCCCAACGAAATGAAAGCTCCACAGCTTGAT 3171  
 QY 1357 GlnLeuIleAsnAsnLysValPheLeuLeuSerPheIleArgThrLeuGlnSerGlnArg 1376  
 DB 3172 GCCCAATCTGTAAATAAAGCTTCTTGTACTGATCCACACCTTGAAAGACAG 3231  
 QY 1377 SerPheSerMetArgAspArgGlyAsnValAlaSerLeuIleMetThrValLeuGlnSer 1396  
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 QY 1397 LysLeuGlnTyrAlaThrAspValLeuLysGlnLeuLeuAlaAspLeuIleAspLysAsn 1416  
 DB 3292 AAGCTGCTTACTGACAGACGATCTAGAGGTGCTGACCGAGGACTTGATGAAACAGTGT 3351  
 QY 1417 LeuGlnSerLysAsnHisProLysLeuLeuLeuArgArgThrGlnSerValAlaGluLys 1436  
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 QY 1457 ProLeuPheSerLeuPheCysAlaIleLysGlnGlnMetGluLysGlyProIleAspAla 1476  
 DB 3466 CCTTCTATTTGCTGTGACGACCTGTAACCGAATAATTAACAGGGTCCGTGGAGTGA 3525  
 QY 1477 IleThrGlyGluAlaArgTyrSerLeuSerGlnAspLysLeuIleArgGlnGlnIleAsp 1496  
 DB 3526 ATCACTTGCAGAACCCCTGTACACACTTAATGAGACTGCTGTGACAGTTCGGA 3585  
 QY 1497 TyrLysThrLeuValLeuSerCysVal-----SerProAspAsnAlaAsnSerPro 1513  
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 QY 1514 -----GluValProValLysIleLeuAsnCysAspThrIleThrGlnValLysGlu 1530  
 DB 3646 GTCTGTGCGAATATTCAGTCAATGTCTGACTGTGACCATTTGGCCAAAGCCAAAGA 3705  
 QY 1531 LysIleLeuAspAlaIlePheLysAsnValProCysSerHisArgProLysAlaAlaAsp 1550  
 DB 3706 AAGATTTTCCAGCACTTCTTAAGCAAAATGCTCTCTTATGACCTCACTTAATGAA 3765  
 QY 1551 MetAspLeuGlnTyrArgGlnGlySerGlyAlaArgMetIleLeuGlnAspGluAspIle 1570  
 DB 3766 ATTGCTCTGACCTCAATGGCACACGACAGAAAGAACTTGTGACATGACAGCTTCC 3825  
 QY 1571 ThrThrLysIleGlnAsnAspTrpLysArgLeuAsnThrLeuAlaHisTyrGlnValPro 1590  
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 QY 1591 AspGlySerValValAlaLeuValSerLysGlnValThrAlaTyrAsnAlaValAsnAsn 1610  
 DB 3886 AATGATCCACTATAAAGTC----- 3906  
 QY 1611 SerThrValSerArgThrSerAlaSerLysTyrGlnAsnMetIleArgTyrThrGlySer 1630  
 DB 3907 -----TTTAAGAGATNAGCAAAATTTACTTCAGAT 3936  
 QY 1631 ProAspSerLeuArgSerArgThrProMetIleThrProAspLeuGlnSerGlyValLys 1650  
 DB 3937 GTGAGTACTCGGATGACAGACCATTTGATTTTACAGATTCGAGAGCA----- 3987  
 QY 1651 MetTrpHisLeuValLysAsnHisGluHisGlyAspGlnLysGlnGlyAspArgGlySer 1670  
 DB 3988 -----TTCCAGATGTGCGAAGAAAGAGACAT-----CGAGGGAG 4023  
 QY 1671 Lys-----MetValSerGlnIleTyrLeuThrArgLeuLeuAlaThrLysGlyThrLeu 1688  
 DB 4024 CACAAGTTCAGAGTAAAGAAATGATGTGCAAAAGCTGCTGTGACCAAGGTGCAATT 4083

QY 1689 GlnLysPheValAspAspLeuPheGlnThrIlePheSerThrAlaHisArgGlySerAla 1708  
 DB 4084 CATTTGCTGCTGAAAAAAGCTTTTGAACAGATTTGAGATTACCAAC-----AGCAGA 4137  
 QY 1709 LeuProLeuAlaIleLysTyrMetPheAspPheLeuAspGlnAlaAspLysHisGly 1728  
 DB 4138 GCTCCATTTGCTATAAATACTTTTGTGACTTTTGGACGCCAGGCTGAAACAAAAA 4197  
 QY 1729 IleHisAspProHisValArgHisThrTrpLysSerArgCysLeuProLeuArgPheTrp 1748  
 DB 4198 ATCAAGATCTGACCTGCTTAATATTGAAAGAACAGCTTCTCTTGTGCTTCGG 4257  
 QY 1749 ValAsnMetIleLysAsnProGlnPheValPheAspIleHisLysAsnSerIleThrAsp 1768  
 DB 4258 GTAAACATCTGAGAGACCTCAGTTTGTCTTGACATTAGAGACACCATATAGAC 4317  
 QY 1769 AlaCysLeuSerValValAlaGlnThrPheMetAspSerCysSerThrSerGlnHisArg 1788  
 DB 4318 GCGTGTGTGATGATGATTCGAGGACATTCATGATGATGATTTCTCTCTCACAGAGCA 4377  
 QY 1789 LeuGlyLysAspSerProSerAsnLysLeuLeuTyrAlaLysAspIleProSerTyrLys 1808  
 DB 4378 CTAGGAGAGAGACCACTAATAAGCTTCTTATGCCAAGATATCCAACTTACAA 4437  
 QY 1809 AsnTrpValGluArgTyrTyrSerAspIleGlyLysMetProAlaIleSerAspGlnAsp 1828  
 DB 4438 GAAGAGTAAATCTTATTAACAAGCAATACAGGATTTGCCCTCATTTGACATCCAGAA 4497  
 QY 1829 MetAsnAlaTyrLeuAlaGlnGlnSerArgMetHisMetAsnGluPheAsnThrMetSer 1848  
 DB 4498 ATGGAAGATTTTAACTAGCAATTAAGAAACATGAAGAAATTAATGAAGAAGTC 4557  
 QY 1849 AlaLeuSerGlnIlePheSerTyrValGlyLysTyrSerGlnGluIleLeuGlyProLeu 1868  
 DB 4558 GCTTGACAGAAATTTACAAATACATCGTAAATATTTTGAAGAGATTTCTAATTAACTA 4617  
 QY 1869 AspHisAsp-----AspGlnCysGlyLysGlnLysLeuAlaTyrLysLeu 1883  
 DB 4618 GAAGAAGAACAGGCGCTGAGAGAGCTCGAAACCAACTTTCAGATGTAAAGTC 4671

RESULT 5  
 US-09-458-791-1  
 ; Sequence 1, Application US/09458791  
 ; Patent No. 6174689  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Sprigge, Melanie  
 ; TITLE OF INVENTION: VIRAL ENCODED SEMAPHORIN PROTEIN  
 ; RECEPTOR DNA AND POLYPEPTIDES  
 ; NUMBER OF SEQUENCES: 10  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Janie C. Henry  
 ; STREET: 51 University St.  
 ; CITY: Seattle  
 ; STATE: WA  
 ; COUNTRY: US  
 ; ZIP: 98101  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: MS-DOS/Windows 95  
 ; SOFTWARE: word for windows 95, 7.0a  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/09/458,791  
 ; CLASSIFICATION: <Unknown>  
 ; PRIORITY APPLICATION DATA:  
 ; APPLICATION NUMBER: 08/958,598  
 ; FILING DATE: 28-OCT-1997  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Henry, Janis C  
 ; REGISTRATION NUMBER: 34,347  
 ; REFERENCE/DOCKET NUMBER: 2631  
 ; TELECOMMUNICATION INFORMATION:

TELEPHONE: (206) 470-4189  
 TELEFAX: (206) 233-0644  
 INFORMATION FOR SEQ ID NO: 1:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4707 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA  
 HYPOTHETICAL: NO  
 ANTI-SENSE: NO  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 1..4707  
 SEQUENCE DESCRIPTION: SEQ ID NO: 1:  
 US-09-458-791-1

Alignment Scores:  
 Pred. No.: 4,26e-136 Length: 4707  
 Score: 1349.00 Matches: 480  
 Percent Similarity: 39.78% Conservative: 251  
 Best Local Similarity: 24.77% Mismatches: 591  
 Query Match: 13.50% Indels: 576  
 Gaps: 74

US-09-964-956-13 (1-1896) x US-09-458-791-1 (1-4707)

QY 72 TyrTysLeuSerSerAspLeuValLeuValThiHisGluThrGlyProAspGluAsp 91  
 Db 208 TACAGCTTGGAGACACAGCCCTCTCGCCCTGACCGGACCAACCGGCGC----- 255  
 QY 92 AsnProLysCysTyrProProArgIleValGlnThrCysAsnGluProLeuThrThrThr 111  
 Db 256 -----AACTGCACAGAGCGGCTCTCGCGCGC 282  
 QY 112 -----AsnAsnValAsnLysMetLeuLeuIleAspTyrLys 123  
 Db 283 CCCCCCGCGCGCCCGCGCCGAGAGACCTTCACAGCAG-----CTGCTGCTGCCCTACCGC 339  
 QY 124 GluAsnArg-----LeuIleAlaCysGlySerLeuTyrGlnGlyIle 137  
 Db 340 GAGGGGGCGCGCGCTCGGGGGGCTGCTCTCACCAGCGCTTCACCGCGGGCGCGC 399  
 QY 138 CysLeuLeuLeuArgLeuGluAspLeuPheLysGluProTyrHisLysLysGlu 157  
 Db 400 TGGAGAGTGGCGGCCCTGGGCAACCTG-----AGCCGCAAC 435  
 QY 158 HisTyrLeuSerGlyVal-----AsnGluSerGlySerValPheGlyVal 172  
 Db 436 TCCCTGGCAACGCGACCGAGTGTGTCTGTCACCGCGAGCTGACGCGCGCGGTG 495  
 QY 173 IleValSerTyrSerAsnLeuAspAspLysLeuPheIleAla----- 186  
 Db 496 GTGACCGC-----GGCGGCGCGGAACACACGCTGTGACTGCGGTGGCGCCCACTACGTG 552  
 QY 187 -----ThrAla 188  
 Db 553 CTGCCTGACCGGAGACGCGGACCGCTGCACACCGCGGCACTCCAGACGACGCGGC 612  
 QY 189 ValAspGlyLysProGluTyrPheProThrIleSerSerArgLysLeuThrLysAsnSer 208  
 Db 613 ATCCCGCTCAAGACACAGGAGGCGGACGCTGCGCACGACGAGCGTGGCGCGCTCAAG 672  
 QY 209 GluAlaAspGlyMetPheAlaTyrValPheHisAspGluPheVal---AlaSerMetIle 227  
 Db 673 CTGTGCAAGGGCGCGGAGCTGCTGACTCTGTGACCGCTTCTCTGGAACGCGACAGTC 732  
 QY 228 LysIleProSerAspThrPheThrIleIleProAspPheAspIleTyrTyrValTyrGly 247  
 Db 733 TACTTCCC-----TACTACCCCTTACAC 756  
 QY 248 PheSerSerGlyAsnPheValTyrPheLeuThrLeuGlnProGluMetValSerProPro 267

Db 757 TATACAGACCGC-----GCTGCACCGCGCTGGCCGACATGCGCGCATCGCG 804  
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 Db 805 CAGAGCAC-----GAG 816  
 QY 288 ThrAlaPheAsnSerTyrValGluValProIleGlyCysGluArgSerGlyValGlu--- 306  
 Db 817 GTGCTGTTCCAGGC-----CAGGACATCCCTGACTGCGGCGCACCGCCACCGCGCGC 870  
 QY 307 TyrArgLeuLeuGlnAlaAlaTyrLysSerLysAlaGlyValValLeuGlyArgThrLeu 326  
 Db 871 CGCGCTGCTCTCTCTCCAGCTAGTGAAGCC----- 906  
 QY 327 GlyValHisProAspAspAspLeuPheThrValPheSer-----LysGlyGlnLys 344  
 Db 907 -----CTGACGCTTGGCGCGGAGTGTTCAGCGCGCGCGCTGAGAGAGCGC 951  
 QY 345 ArgLysMetLysSerLeuAspGluSerAlaLeuCysIlePheIleLeuLysGlnIleAsn 364  
 Db 952 CAGAGAGCGCGCTCCCGCACACACGCGCTCTGCTTTCAGAAATGAGTGAATCCAG 1011  
 QY 365 AspArgIleLysGluArgLeuGlnSerCysTyrArgIleGluGlyThrLeuAspLeuAla 384  
 Db 1012 GCGCGCGCCAGAG-----GTCAGC 1032  
 QY 385 Trp-----LeuLysValLysAspIleProCysSerSerAlaLeuLeuThrIleAspAsn 403  
 Db 1033 TGGACCTTCAAGAGCGCGGACGCTGCMAAGAGAG----- 1071  
 QY 404 PheCysGlyLeuAspMetAsnAlaProLeuGlyValSerAspMetValArgGlyIlePro 423  
 Db 1072 -----GATCAACCT-----GAAAGATTCACCAATTCGA 1101  
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 Db 1102 TCATCTACCTTGATTCATTCGACCTGACATCCGTTATGACACCGTGTATGATGACAG 1161  
 QY 444 SerLeuAlaPheValGlyThrLysSerGlyLysLeuLysLysIleAlaValAspGlyPro 463  
 Db 1162 ACTGTTTATCTTGGGAGCTGAGAGATGCCAGTACTTAAAGTTATCTT----- 1212  
 QY 464 ArgGlyAsnAlaLeuGlnTyrGluThrValGlnValVal----- 476  
 Db 1213 ---GCTGGAATTGACTTCAATTCGCCAGAGTTTCTATGTAATTAAGAGAGCA 1269  
 QY 477 -----AspProGlyProValLeuArgAspMetAlaPheSerLysAsp 490  
 Db 1270 CCGTTTCTACAAACCTGTTCTGATCTGTG-----AAG 1305  
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 QY 511 GlyGlnTyrGlnSerCysGlyGluCysLeuGlySerGlyAspProHisCysGlyTyrCys 530  
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 QY 531 ValLeuHisAsnThrCysThrArgLysGluArgCysGluArgSerLysGluProArgArg 550  
 Db 1426 CATTCGCTAACAAAGTGACATTTTCAGAGATGT----- 1461  
 QY 551 PheAlaSerGluMetLysGlnCysValArgLeuThrValHisProAsnAsnIleSerVal 570  
 Db 1462 -----GTAATTCCAGAACTTGANA--- 1482  
 QY 571 SerGlnTyrAsnValLeuValLeuGlnThrTyrAsnValProGluLeuSerAlaGly 590  
 Db 1483 -----ACTGAGCTGATATTCGCTGCA 1506  
 QY 591 ValAsnCysThrPheGluAspLeuSerGluMetAspGlyLeuValValGlyAsnGlnIle 610  
 Db 1506 ----- 1506

QY 611 GlnCysTyrSerProAlaAlaLysGluValProArgIleIleThrGlnAsnGlyAspHis 630  
 DB 1507 -----GCAAAAAAGTGGCCCTTAAAT----- 1527  
 QY 631 HisValValGlnLeuGlnLeuLysSerIleGluThrGlyMetThrPheIleAsnThrSer 650  
 DB 1528 -----CAGATTAATTCGAAAGCACTAAGAAAAAGCTACAGTACTAGTGGGAGAGC 1578  
 QY 651 PheValPheTyrAsnCysSerValHisAsnSerCysLeu--SerCysValGlnSerPro 669  
 DB 1579 TTC-----TCTCCAGACACTCAAGTGCATGGTGAAGAAATGTGCACTTACG 1626  
 QY 670 TyrArgCysHisTyrCysLysTyrArgHisValCysThrHisAspProLysThrCysSer 689  
 DB 1627 -----AGGAGACTCTGC----- 1638  
 QY 690 PheGlnGluArgValLysLeuProGluAspCysProGlnLeuLeuArgValAspLys 709  
 DB 1638 ----- 1638  
 QY 710 IleLeuValProValGluValIleLysProIleThrLeuLysAlaLysAsnLeuProGln 729  
 DB 1639 -----CAGATTAAGAACTCAG 1653  
 QY 730 ProGlnSerGlyGlnArgGlyTyrGluCysIleLeuAsnIleGlnLysSerGluGlnArg 749  
 DB 1654 CCGAACCGG-----ACCTGCACCTGTACATC----- 1660  
 QY 750 ValProAlaLeuArgPheAsnSerSerValGlnCysGlnAsnThrSerTyrSerTyr 769  
 DB 1661 -----CCACCAAGCAAGCACTACAAAGATGTTTCAGTTCGACAGTGTCTCTCTC 1734  
 QY 770 GluGlyMetGluIleAsnAsnLeuProValGluLeuThrValValTyrAsn-----Gly 787  
 DB 1735 GGTTCCT-----TGGAAATTTATCCAGC 1755  
 QY 788 HisPheAsnIleAspAsnProAlaGlnAsnLysValHisLeuTyrLysCysGlyAlaMet 807  
 DB 1756 AGATTCAACTTACCAAC-----TGCTCATCATTA 1785  
 QY 808 ArgGlnSerCysGlyLeuCysLeuLysAlaAspProAspPheAlaCysGlyTyrCysGln 827  
 DB 1786 AAAGAA-----TGCCCAAGCATGGCTGAACCT-----GGCTGGCGGTGGTGA 1830  
 QY 828 GlyProGlnGlnCysThrLeuArgGlnHisCysProAlaGlnGlnSerGlnTyrLeuGlu 847  
 DB 1831 AGTGCAGAAAGCTG----- 1845  
 QY 848 LeuSerGlyAlaLysSerLysCysThrAsnProArgIleThrGluIleIleProValThr 867  
 DB 1846 -----ATCCACCCCTTCA 1860  
 QY 866 GlyProArgGluGlyGlyThrLysValThrIleArgGlyLysAsnLeuGlyLeuGluPhe 887  
 DB 1861 GCT----- 1863  
 QY 888 ArgAspIleLeuAsnThrIleValLysValAlaGlyValGluCysSerProLeuValAspGly 907  
 DB 1864 -----TGGGACCCCT-----TCT 1875  
 QY 908 TyrIleProAlaGluGlnIleValCysGluMet-----GlyGluAla 921  
 DB 1876 GATTATGACAGAAACGAGAACAGTGTCCAGTGGCTGTCCGAGAACATCAGAGAGAGA 1935  
 QY 922 LysProSerGlnHisLeuGlyPheValGluIleCysValAlaValCysArgProGluPhe 941  
 DB 1936 AACACCAAGAGAAACAGAGGG-----AACAGA 1962  
 QY 942 MetAlaLysSerSerGlnLeuTyrTyrPheMetThrLeuThrLeuSerAspLeuLysPro 961  
 DB 1963 ACCAACCAAGGCTTACAGGCTTCTTAC-----ATTAGTCCATTGAGCCA 2007

QY 962 SerArgGlyProMetSerGlyGlyThrGlnValThrIleThrGlyThrAsnLeuAsnAla 981  
 DB 2008 CAGAAAGATTCGACATTAGGAAAAAGCAACCTGATAGAAAGGAGCAAACTTTAACCCGG 2067  
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 QY 1206 LeuIle----- 1207  
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Qy      1321 ThrMetArgValLeuPhePro-----GlyIleGluAspHisProValLeuArgAspLeu 1338
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Qy      1631 ProAspSerLeuArgSerArgThrProMetIleThrProAspLeuGlnSerGlyValLys 1650

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RESULT 6
US-09-459-066-1
Sequence 1, Application US/09459066
Patent No. 6187909
GENERAL INFORMATION:
APPLICANT: Spitzers, Melanie
TITLE OF INVENTION: VIRAL ENCODED SEMAPHORIN PROTEIN
TITLE OF INVENTION: RECEPTOR DNA AND POLYPEPTIDES
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: Janis C. Henry
STREET: 51 University St.
CITY: Seattle
STATE: WA
COUNTRY: US
ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: MS-DOS/Windows 95
SOFTWARE: Word for Windows 95, 7.0a
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/459,066

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FILING DATE:  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: 08/958,598  
 FILING DATE:  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Henry, Janis C.  
 REGISTRATION NUMBER: 34,347  
 REFERENCE/DOCKET NUMBER: 2631  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (206) 470-4189  
 TELEFAX: (206) 233-0644  
 INFORMATION FOR SEQ ID NO: 1:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4707 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 MOLECULE TYPE: cDNA  
 HYPOTHEICAL: NO  
 ANTI-SENSE: NO  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: 1..4707  
 US-09-459-066-1  
 US-09-964-956-13 (1-1896) x US-09-459-066-1 (1-4707)  
 Alignment Scores:  
 Pred. No.: 4,266-136 Length: 4707  
 Score: 1349.00 Matches: 480  
 Percent Similarity: 39.78% Conservative: 291  
 Best Local Similarity: 24.77% Mismatches: 591  
 Query Match: 13.50% Indels: 576  
 DB: 3 Gaps: 74

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 QY 1457 ProLeuPheSerLeuPheCysAlaIleLysGlnGlnMetGlnLysGlyProIleAspAla 1476  
 Db 3466 CCTTCTATTGCTGTGACGACTGTGAACAGAAATTAACAGAGGTCCGTGATGTA 3525  
 QY 1477 IleThrGlyGlnAlaArgTySerLeuSerGlnAspLysLeuIleArgGlnGlnIleAsp 1496  
 Db 3526 ATCACTTGCAAGCCCTGTACACACTTAATGAAGCTGCTGTGTGGCAGAGTCCGGA 3585  
 QY 1497 TyLysThrLeuValLeuSerCysVal-----SerProAspAsnAlaAsnSerPro 1513  
 Db 3586 TTCAGTACTGTGGCATTAACGCTGCTTGAATAAATCCGGAAGAGAGTCAAT 3645  
 QY 1514 -----GlnValProValLysIleLeuAsnCysAspThrIleThrGlnValLysGln 1530  
 Db 3646 GTCGTGCGAATTTTCAGTCATGATTTCTCGACTGTGACACATTTGGCCAAACCAAGAA 3705  
 QY 1531 LysIleLeuAspAlaIlePheLysAsnValProCysSerHisArgProLysAlaAlaAsp 1550  
 Db 3706 AAGATTTTCCAGCATTTCTTAAGCAAAATGCTCTCCTTAAGCACTTCACTTAATGA 3765  
 QY 1551 MetAspLeuGlnTrpArgGlnLysArgLysAlaArgMetIleLeuGlnAspGlnAspIle 1570  
 Db 3766 ATTGCTTTAGCTTCAATGGACACAGCAAGAAAGACTTCTGACATGACAGCTTCC 3825  
 QY 1571 ThrThrLysIleGlnAsnAspTrpLysArgLeuAsnThrLeuAlaHisTyGlnValPro 1590  
 Db 3826 TCCGTATTTCTTGAAGTGAATCACCAGCTTAACACCATTTGGCCCATATGAATATCA 3885  
 QY 1591 AspGlySerValaValaLeuValSerLysGlnValThrAlaTyAsnAlaValAsnAsn 1610

Db 3886 AATGATCCACATATAAAGTC----- 3906  
 QY 1611 SerThrValSerArgThrSerLaseLysTyGlnAsnMetIleArgTyThrGlySer 1630  
 Db 3907 -----TTTAAGAAAGATGCAAAATTTACTTCAAT 3936  
 QY 1631 ProAspSerLeuArgSerArgThrProMetIleThrProAspLeuGlnSerGlyValLys 1650  
 Db 3937 GTGAGTACTCCGATGACCATGCGCATTTGATTTTACAGATTCCGAAGCA----- 3987  
 QY 1651 MetThrPheLeuValLysAsnHisGlnHisGlyAspGlnLysGlnLysAspArgLysSer 1670  
 Db 3988 -----TTCGAAGATGTGCAGAAAGAGACT-----CGAGGGAAG 4023  
 QY 1671 Lys-----MetValSerGlnIleTyLeuThrArgLeuLeuAlaThrLysGlyThrLeu 1688  
 Db 4024 CACAATTCGAAGTAAAGAAATGATATCTGACAAAGCTGCTGTCCAGCAAGGTGGCAAT 4083  
 QY 1689 GlnLysPheValAspAspLeuPheGlnThrIlePheSerThrAlaHisArgGlySerAla 1708  
 Db 4084 CATTCTGTGCTTGAATAAATCTTTTGAACATTTGAGATTTTACCCAAAC-----AGCAGA 4137  
 QY 1709 LeuProLeuAlaIleTySerTyMetPheAspPheLeuAspGlnGlnAlaAspLysHisGly 1728  
 Db 4138 GCTCCATTGTGCTATATAAATCTTTTGTGCTTTTGGACCCCGAGCTGAAACAA 4197  
 QY 1729 IleHisAspProHisValaArgHisThrTyPlySerAsnCysLeuProLeuArgPheTrp 1748  
 Db 4198 ATCAGAGATCTGACCTGCTATCATATTTGAAACAAACAGCTTCTGCTGCTTGG 4257  
 QY 1749 ValAsnMetIleLysAsnProGlnPheValPheAspIleHisLysAsnSerIleThrAsp 1768  
 Db 4258 GTPAACATCTGTGAAGACCTCATGTTGCTTTGACATTAAGAAGACCAACATATAGC 4317  
 QY 1769 AlaCysLeuSerValaValaGlnThrPheMetAspSerCysSerThrSerGlnHisArg 1788  
 Db 4318 GCGTGTGTGCAATGATGTCGCGCATTCATGAGATGAGATTTCTCTCCAGAGCA 4377  
 QY 1789 LeuGlyLysAspSerProSerAsnLysLeuLeuTyAlaLysAspIleProSerTyLys 1808  
 Db 4378 CTAGGGAAGAGACCACTAATTAAGCTTCTATGCAAGATATCCCAACCTTCAAA 4437  
 QY 1809 AsnTrpValGlnArgTyTySerAspIleGlyLysMetProAlaIleSerAspGlnAsp 1828  
 Db 4438 GAAGAGTAATAACTTATTAACAAGCATCAGGATTTGCTCATTTGATCTCAGAA 4497  
 QY 1829 MetAsnAlaTyLeuAlaGlnGlnSerArgMetHisMetAsnGlnPheAsnThrMetSer 1848  
 Db 4498 ATGAGAAATTTTAACTCAGGATCTTAAGAAACAGAAATTAATTAAGAAGAGTG 4557  
 QY 1849 AlaLeuSerGlnIlePheSerTyValaGlyTyTySerGlnGlnIleLeuGlyProLeu 1868  
 Db 4558 GCCTTACACAAATTTAACAATATCATCGTAAATATTTGATGAGATTCTTAATAACTA 4617  
 QY 1869 AspHisAsp-----AspGlnCysGlyLysGlnLysLeuAlaTyTyLysLeu 1883  
 Db 4618 GAAAGAGAAAGAGGCTGGAAGAGCTCAAAAACAATCTTGATGATTAAGATC 4671

RESULT 7  
 US-09-459-065-1  
 ; Sequence 1, Application US/09459065  
 ; Patent No. 6562949  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Spriggs, Melanie  
 ; TITLE OF INVENTION: VIRAL ENCODED SEMAPHORIN PROTEIN  
 ; TITLE OF INVENTION: RECEPTOR DNA AND POLYPEPTIDES  
 ; NUMBER OF SEQUENCES: 10  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Janis C. Henry  
 ; STREET: St University St.  
 ; CITY: Seattle  
 ; STATE: WA



Db 1366 AATAAACAATAATCTGTTCCGAGGCTTTTACAGACAGACCTCTGCGTGGTGC 1425  
QY 531 ValLeuH:saenThrCysThrArgLysGluArgCysGlyuArgSerLysGluProArgArg 550  
Db 1426 CATTCGCTACAAAGGTGACCTTTTCAGAGATTGT----- 1461  
QY 551 PheAlaSerGluMetLysGlnCysValArgLeuThrValHisProAsnAsnIleSerVal 570  
Db 1462 -----GTCATTCAGAGAACTTGAA----- 1482  
QY 571 SerGlnTyrAsnValIleuLeuValIleuGluThrTyrAsnValProGluLeuSerAlaGly 590  
Db 1483 -----AACTGCTGAGATATTTCCCTCGA 1506  
QY 591 ValAsnGlyThrPheGluAspLeuSerGluMetAspGlyLeuValValGlyAsnGlnIle 610  
Db 1506 ----- 1506  
QY 611 GlnCysTyrSerProAlaAlaLysGluValProArgIleIleThrGluAsnGlyAspHis 630  
Db 1507 -----GCAAAAAAGTGCCTAAATT----- 1527  
QY 631 HisValValGlnIleuGlnIleuLysSerLysGluThrArgLysMetThrPheAlaSerThrSer 650  
Db 1528 -----CAGATAATTGGAAGCAGTAAAGAAAGAACTACAGTACTATGCTGGAGAGC 1578  
QY 651 PheValPheTyrAsnCysSerValHisAsnSerCysLeu-----SerCysValGluSerPro 669  
Db 1579 TTC-----TCTCCAGACACTCAAGTGCATGTGAGAAATGTGACTCTAGC 1626  
QY 670 TyrArgCysHisTyrCysLeuTyrArgHisValCysThrHisAspProLysThrCysSer 689  
Db 1627 -----AGGAGCTCTGC----- 1638  
QY 690 PheGlnGluGlyArgValLysLeuProGluAspCysProGlnIleuLeuArgValAspLys 709  
Db 1638 ----- 1638  
QY 710 IleLeuValProValGluValIleLysProIleThrLeuLysAlaLysAsnLeuProGln 729  
Db 1639 -----CAGAAATTAAGTCAAG 1653  
QY 730 ProGlnSerGlyGlnArgGlyTyrGluCysIleLeuAsnIleGlnLysSerGluGlnArg 749  
Db 1654 CCCAACCGG-----ACCTGCACCTAGCATC----- 1680  
QY 750 ValProAlaLeuArgPheAsnSerSerValGlnCysGlnAsnThrSerTyrSerTyr 769  
Db 1681 -----CCAAACGAGCAACTACAAAGATGTTTCAGTGTGCAACGATGATCTCCCTTC 1734  
QY 770 GluGlyMetGluIleAsnAsnLeuProValGluLeuThrValValTyrAsn-----Gly 787  
Db 1735 GGTTCT-----TGAATTATTCAGAC 1755  
QY 788 HisPheAsnIleAspAsnProAlaGlnAsnLysValHisLeuTyrLysCysGlyAlaMet 807  
Db 1756 AGATTCACTTACCAAC-----TGCTCATCATTA 1785  
QY 808 ArgGlnSerCysGlyLysCysLeuLysAlaAspProAspPheAlaCysGlyTyrProGln 827  
Db 1786 AAAGAA-----TGCCCGCATGCGTAGAAACT-----GGCTGCGCGGTGGTAA 1830  
QY 828 GlyProGlyGlnCysThrLeuArgGlnHisCysProAlaGlnGluSerGlnTyrLeuGlu 847  
Db 1831 AGTGCAGAAAGGTG----- 1845  
QY 848 LeuSerGlyAlaLysSerLysCysThrAsnProAlaGlnIleThrGluIleIleProValThr 867  
Db 1846 -----ATCCACCCCTTACA 1860  
QY 868 GlyProArgGluGlyLysThrLysValThrIleArgGlyLysAsnLeuGlyLeuGluPhe 887

Db 1861 GCT----- 1863  
QY 888 ArgAspIleAlaSerHisValLysValAlaGlyValGluCysSerProLeuValAspGly 907  
Db 1864 -----TGGGACCT-----TCT 1875  
QY 908 TyrIleProAlaGluGlnIleValCysGluMet-----GlyGluAla 921  
Db 1876 GATTATGAGAGAAACCAAGACAGATGTCAGTGGCTGTGAGAGACATCAGAGAGAGA 1935  
QY 922 LysProSerGlnHisAlaGlyPheValGluIleCysValAlaValCysArgProGluPhe 941  
Db 1936 AGACCCAGAGAGACAGAGG-----AAACGA 1962  
QY 942 MetAlaArgSerSerGlnLeuTyrTyrPheMetThrLeuThrLeuSerAspLeuLysPro 961  
Db 1963 ACCAACGAGCTTACAGGCTTCTAC-----ATTAAGTCATTGAGCCA 2007  
QY 962 SerArgGlyProMetSerGlyLysThrGlnValThrIleThrGlyThrAsnLeuAsnIle 981  
Db 2008 CAGAAAGTATCGACATTAGGAGAAAGCAACGATATGTAACGGAGCAAACTTTACCCGG 2067  
QY 982 GlySerAsnVal-----ValValMetPheGlyLysGlnProCys----- 994  
Db 2068 GCATGACATCATCATATGATCCGAAAGAACACAGTACTGTGATAGAGATGTGATACAG 2127  
QY 995 LeuPheHisArgArgSerProSerTyrIleValCysAsnThrThrSerSerAspGluVal 1014  
Db 2128 GTTAGCCATGTGTAAATATACACCCACATGAATTTCTCTTCCATCAAGCCGGAAA----- 2184  
QY 1015 LeuGluMetLys-----ValSerValGlnValAspArgAlaLysIleHisGlnAspLeuVal 1033  
Db 2185 ---GAATGAGAGATGTGTATCCAGTGTATGAGGGGAAGTGCCTTCTGGGATCC 2241  
QY 1034 PheGlnTyrValGluAspProThrIleValArgIleGluProGluTyrSerIleValSer 1053  
Db 2242 TTATCCTAATGCTCTGCGCACATGTTCCCTTAATTTCCGTCACCCAGTGCATGACT 2301  
QY 1054 GlyAsnThrProIleAlaValTyrGlyThrHisLeuAspLeuIleGlnAsnProGlnIle 1073  
Db 2302 GGTGTCGAAATATTAACCATGATGGCAGAAATTTGATGTAATTGACACAC-----TTA 2355  
QY 1074 ArgAlaLysHisGlyLysGluHisIleAsnIleCysGluValLeuAsnAlaThrGlu 1093  
Db 2356 ATCATTTACATGAATTAAGGAACATTAATGTCTGGAATATGTGTGCGACTTAC 2415  
QY 1094 MetThrCysGlnAlaProAlaLeuAlaLeuGlyProAspHisGlnSerAspLeuThrGlu 1113  
Db 2416 TCGGGGTTTAAAGCCCAAGTTA----- 2439  
QY 1114 ArgProGluGluPheGlyPheIleLeuAspAsnValGlnSerLeuLeuIleLeuAsnLys 1133  
Db 2440 -----AAGAGTTCAAAAGTGCAGCAAGTGCATGTAAGCTGAGAGTCAAGAC 2490  
QY 1134 Thr-----AsnPheThrTyrTyrProAspProValPheGluAlaPheGly 1148  
Db 2491 ACCTACTGATTTGGAACCTCGCAGTATCGGAGAGACCCGATTCACGGGATTCGG 2550  
QY 1149 ProSerGlyIleLeuGluLeuLysProGlyThrProIleIleLeuLysGlyLysAsnLeu 1168  
Db 2551 -----GTGAAATCCGAGGTGACACAGAACTGGAAGTGAATAATTCA----- 2592  
QY 1169 IleProProValAlaGlyLysMetValLysLeuAsnTyrThrValLeuValGlyGluLys 1188  
Db 2593 -----AAAGAAAGACACTTCAATATTTCCAAABAA 2625  
QY 1189 ProCysThrValThrVal-----SerAspValGlnLeuLysCysGluSerProAsn 1205  
Db 2626 GACATTTGAATATCTCTCTTCCATGGGGAAGAAATGGCAATTAATTCAGATTGAAAT 2685  
QY 1206 LeuIle----- 1207  
Db 2686 ATTAAGTAAGTAAGATCTTACCAACCATCTTTCGAAAATTAAGGCATCAAGACTGCA 2745

QY 1208 -----GlyArgHisValMetAlaArgValGlyMetGluTyrSer 1222  
 Db 2746 AACACATGCCAACCTCTTAAGAAAGTTCGGGTCAAGCTGGAAACCTGAG----- 2799  
 QY 1223 ProGlyMetValTyrTleAlaProAspSer---ProLeuSerLeuProAlaIleValSer 1241  
 Db 2800 -----CTCTACGTCGACGAGAGTCACTTCCTTCACATGGATTTCTGATTGTG 2850  
 QY 1242 IleAlaValAlaGlyValLeuLeuIleIlePheIleValAlaValLeuIleAlaTyrLys 1261  
 Db 2851 CTCCTGTC-----TTGCTAGGATGTTTCATTTTGGCGCGGTGGGTGACCAAG 2901  
 QY 1262 ArgLysSerArgGluSerAspLeuThrLeuLysArgLeuGlnMetGlnMetAspAsnLeu 1281  
 Db 2902 CACAAATCGAAGAG-----CTGAGTCGCAAAACAGAGTCAA---CAACTGAATTTGCTG 2952  
 QY 1282 GluSerArgValAlaLeuGlnLysGluValAlaPheAlaGluLeuGlnThrAspIleHis 1301  
 Db 2953 GAAAGGAGCTCCGAAAGAGATACGTACGGCTTTGAGCTGCACTGCAATGATTAATTG 3012  
 QY 1302 GluLeuThrSerAspLeuAspGlyAlaGly---IleProPheLeuAspTyrArgThrTyr 1320  
 Db 3013 GATGTG-----GTTGATGATTTTGGAACTGTTCCCTTCCTGACTACAAACATTTT 3063  
 QY 1321 ThrMetArgValLeuPhePro-----GlyTleGluAspHisProValLeuArgAspLeu 1338  
 Db 3064 GCTCTAGAACCTTTCTTCCCTGAGTCAGGTGGCTTCAACCAATCTTCACTGAAGATATG 3123  
 QY 1339 GluValProGlyTyrArgGlnIleArgValGluLysGlyLeuLysLeuPheAla----- 1356  
 Db 3124 -----CATAAACAGAGACGCCAAGCAAGAAATGAAGTCAACACTTTGGAT 3171  
 QY 1357 GluLeuIleAsnLysValPheLeuLeuSerPheIleArgThrLeuGlnSerGlnArg 1376  
 Db 3172 GCCCTATCTGTATATAAAGCTTTCTTGTACTGTCATCCACACCTTAAAGAGAGAG 3231  
 QY 1377 SerPheSerMetArgAspArgGlyAsnValAlaSerLeuIleMetThrValLeuGlnSer 1396  
 Db 3232 AACTTTTCTGTGAAGACAGGTCTGTGTTGCTCTCTTCAACCTTGACATGCAAC 3291  
 QY 1397 LysLeuGluTyrAlaThrAspValLeuLysGlnLeuLeuAlaAspLeuIleAspLysAsn 1416  
 Db 3292 AACTGATCTACCTGACCAAGATCTAGAGGTCTACCAAGGAACTGTATGAACAAGTGT 3351  
 QY 1417 LeuGluSerLysAsnHisProLysLeuLeuLeuArgArgThrGluSerValAlaGluLys 1436  
 Db 3352 -----AGTAACTGACGCCGAGAACTCATGTGAGAGCGAGTCCGTCTGAATA 3405  
 QY 1437 MetLeuThrAsnTyrPheThrPheLeuLeuTyrLysPheLeuLysGlnCysAlaGlyGln 1456  
 Db 3406 CTCTTCACAAACTGATGATCCGTGCTGCTTCTGATTTCTCGGAGACTGTCGGAAG 3465  
 QY 1457 ProLeuPheSerLeuPheCysAlaIleLysGlnGlnMetGlnLysGlyProIleAspAla 1476  
 Db 3466 CCTTCTATTGTGTGTGACGACTGACCAACCAAAATTAACAGAGGTCCCGTAGTGA 3525  
 QY 1477 IleThrGlyGluAlaArgTyrSerLeuSerGluAspLysLeuIleArgGlnGlnIleAsp 1496  
 Db 3526 ATGACTTGCAAACCCCTGTACACACTTAATGAAGATGCGTGTGTGGCAGGTCCGGA 3585  
 QY 1497 TyrLysThrLeuValLeuSerCysVal-----SerProAspAsnAlaAsnSerPro 1513  
 Db 3586 TTCAGTACTGTGCATTAACGTCGTTTGAATAAAATCCCGGAATAACAGAGTGCAGAT 3645  
 QY 1514 -----GluValProValLysIleLeuAsnCysAspThrIleThrGlnValLysGln 1530  
 Db 3646 GTCTGTGCGAATATTTCAGTCATGTTCTGACTGTGACACACTTGGCCAAAGCAAGAA 3705  
 QY 1531 LysIleLeuAspAlaIlePheLysAsnValProCysSerHisArgProLysAlaAlaAsp 1550  
 Db 3706 AAGATTTTCCAGCATTTCTTAACCAAAATGAGCTCTCTTATGACTTGAAGCTTAATGA 3765

QY 1551 MetAspLeuGluTyrArgGlnLysArgValAlaArgMetIleLeuGlnAspGluAspIle 1570  
 Db 3766 ATTGCTCTTGAAGCTTCAAAATGGGCACACGACAGAAAGAACTTCTGACATTCGACATTCC 3825  
 QY 1571 ThrThrLysIleGlnLysAsnTyrPheLysAsnThrLeuAlaHisTyrGlnValPro 1590  
 Db 3826 TCGGTGATTTCTGAAGTGAATGGAATCACCAGCTTAAACCACTTGGCCACTATGAGATCA 3885  
 QY 1591 AspGlySerValAlaAlaLeuValSerLysGlnValThrAlaTyrAsnAlaValAsnAsn 1610  
 Db 3886 AATGATTCACATTAATAAGTC----- 3906  
 QY 1611 SerThrValSerArgThrSerAlaSerLysTyrGluAsnMetIleArgTyrThrLysSer 1630  
 Db 3907 -----TTTAAGAGATGACCAAAATTTTACTTCAAT 3936  
 QY 1631 ProAspSerLeuArgSerArgThrProMetIleThrProAspLeuGlnSerGlyValLys 1650  
 Db 3937 GTGAGATGACTCGATGACCACTGCAATTTGATTTTACCATTCGAGAGCA----- 3987  
 QY 1651 MetTyrPheValLysAsnHisGluHisGlyAspGlnLysGluLysAspArgLysSer 1670  
 Db 3988 ---TTCAGATGTGCAGAGAAAGACAT-----CGAGGAG 4023  
 QY 1671 Lys-----MetValSerGluIleTyrLeuThrArgLeuLeuAlaThrLysGlyThrLeu 1688  
 Db 4024 CACAACTTCAAGATTAAGAAATGATATCTGACAAAGCTGTCGACCAAGGTGGCAATT 4083  
 QY 1689 GlnLysPheValAspAspLeuPheGluThrIlePheSerThrAlaHisArgGlySerAla 1708  
 Db 4084 CATCTGTGCTGTAATAAATTTTAGAAGCATTTGGATTGATTAACCAAC-----AGAGA 4137  
 QY 1709 LeuProLeuAlaIleLysTyrMetPheAspPheLeuAspGlnGluAlaAspLysHisGly 1728  
 Db 4138 GCTTCATTTGCTATTAATACTTTTGTGACTTTTGGACCCCGACGCTGAACAAATAA 4197  
 QY 1729 IleHisAspProHisValArgHisThrTyrLysSerAsnCysLeuProLeuArgPheTyr 1748  
 Db 4198 ATCACAGATCCTGACGTCGTATATATTTGAAAAAACAAGCCCTTCCTGCTGCTTCTG 4257  
 QY 1749 ValAsnMetIleLysAsnProGlnPheValPheAspIleHisLysAsnSerIleThrAsp 1768  
 Db 4258 GTAAACATCTCGAAGAACCCCTGAGTGTCTTGTGACATTAAGAGACACACATATAGAC 4317  
 QY 1769 AlaCysLeuSerValAlaAlaGlnThrPheMetAspSerCysSerThrSerGluHisArg 1788  
 Db 4318 GCGTGTGTGACAGATTTGCCAGGACATTCATGATCATTTCTCTCACAGAGCAACAA 4377  
 QY 1789 LeuGlyLysAspSerProSerAsnLysLeuLeuTyrAlaLysAspIleProSerTyrLys 1808  
 Db 4378 CTAGGAGAGAGACCAACACTTAATAGCTTCTTATGCTTATGACCAAGATATCCAACTACAA 4437  
 QY 1809 AsnTyrValGluArgTyrTyrSerAspIleGlyLysMetProAlaIleSerAspGlnAsp 1828  
 Db 4438 GAAGAATTAATTTTATTCACAAAGCAATCAGGATTTGCTCATGTATGCTCAGAA 4497  
 QY 1829 MetAsnAlaTyrLeuAlaGluGlnSerArgMetHisMetLysGlnLysPheAsnThrMetSer 1848  
 Db 4498 ATGAGAGATTTTAACTGAGATTCAGAAATCTAAGAAATCAATAATTAATTAAGAAAGTG 4557  
 QY 1849 AlaLeuSerGluIlePheSerTyrValGlyLysTyrSerGluGlnIleLeuGlyProLeu 1868  
 Db 4558 GCTTTCAGCAAAATTTTCAATATCATGTAAATATTTTATGATGATTTCAATTAATCA 4617  
 QY 1869 AspHisAsp-----AspGlnCysGlyLysGlnLysLeuAlaTyrLysLeu 1883  
 Db 4618 GAAAGAGAACAGAGGCTGTGAAAGAGTTCAGAAACCACTTTCATGATTAAGTGC 4671

## RESULT 8

US-09-023-655-603

; Sequence 603; Application US/09023655

; Patent No. 6607879

; GENERAL INFORMATION:

APPLICANT: Cocke, Benjamin G.  
 APPLICANT: Susan G. Stuart  
 APPLICANT: Jeffrey J. Seithamer  
 TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE  
 NUMBER OF SEQUENCES: 1508  
 CORRESPONDENCE ADDRESS:  
 ADDRESS: INCYTE PHARMACEUTICALS, INC.  
 STREET: 3174 PORTER DRIVE  
 CITY: PALO ALTO  
 STATE: CALIFORNIA  
 COUNTRY: USA  
 ZIP: 94304  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/09/023,655  
 FILING DATE: HEREWITH  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER:  
 FILING DATE:  
 CLASSIFICATION:  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Zeller, Karen J.  
 REGISTRATION NUMBER: 37,071  
 REFERENCE/DOCKET NUMBER: PA-0001 US  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (650) 855-0555  
 TELEFAX: (650) 845-4166  
 INFORMATION FOR SEQ ID NO: 603:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 3458 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: single  
 TOPOLOGY: linear  
 IMMEDIATE SOURCE:  
 LIBRARY: THYMION04  
 CLONE: 3191066  
 US-09-023-655-603

Alignment Scores:  
 Pred. No.: 1,596-60 Length: 3458  
 Score: 657.00 Matches: 146  
 Percent Similarity: 61.17% Conservative: 43  
 Best Local Similarity: 47.25% Mismatches: 79  
 Query Match: 6.58% Indels: 42  
 DB: 4 Gaps: 7

US-09-964-956-13 (1-1896) x US-09-023-655-603 (1-3458)

QY 1615 ArgHrSerAlaSerIyStyGlnSmMetIleArgIyTrnGly-----SerProAsp 1632  
 DB 1420 AGAAGGTGGCGCTTGATTAAT-----TTTACTGGGGTCCATGTCACAGAT 1464  
 QY 1632 ----- 1632  
 DB 1465 TTTCTTTCGATTGTAAATATATTTTACTTTTGTCTCTCAATTAATAATGATCCA 1524  
 QY 1633 -----SerLeuArgSerArgIhrProMetIleThrProAspLeu 1645  
 DB 1525 TATAAAATAGAGAAATAAGTCTTTAAGGAGAGTTTCGGCGGAGTGAAAGACTTG 1584  
 QY 1646 GUSerGlyValIyMetTrpHisLeuVal---LysAsnHisGluHisGlyAspGlnLys 1664  
 DB 1585 GACACG---GAGAGATTTTCCATTGTGTGCTGCTCAAGACGAGCT-GGGGAGNCAG 1640  
 QY 1665 GIUGIyAspArgIySer-----LysMetValSerGluIleTyTrLeuThrArgLeu 1681  
 DB 1641 AAGTTCACCGGAGAGCATGCAAGAGGTGCTCCGAAATCTTACTGACCCGCTG 1700

QY 1682 LeuAlaThrLyLeuGlyThrLeuGlnLysPheValaAspLeuPheGluThrIlePheSer 1701  
 DB 1701 CTCTCCACCAAGGAGGACGTTGAGAAATTTTCGATGACCTGTTCAGACCATTTGTAGT 1760  
 QY 1702 ThrAlaHisArgGlySerAlaLeuProIleuAlaIleTyTrMetPheAspPheLeuAsp 1721  
 DB 1761 ATC-----CGTGAAGACAGAGCCCGCTGCTGTCGCAANNMCTTTTGACTCTTGAN 1814  
 QY 1722 GIUGIAlaAspLysHisGlyTrIleHisAspProHisValArgHisThrTrpLysSerAsn 1741  
 DB 1815 GANCAAGCTGAGAAAGGGGAAATCTCCAGACCCCGACACCTACATCATGTGAAGACCAAC 1874  
 QY 1742 CysLeuProLeuArgPheTrpValaIsnMetIleLysAsnProGlnPheValaPheAspIle 1761  
 DB 1875 AGCTTCTCTCCGGTCTGGGTGAGTCAATCCGAAAGAACCCCGTGTGTCTTTGACATC 1934  
 QY 1762 HisLysAsnSerIleThrAspAlaCysLeuSerValaValaGlnThrPheMetAspSer 1781  
 DB 1935 GACAGACAGACCAATGACGCGCTGCTTTCAGTCATCGCGAGCCTTCAACGCC 1994  
 QY 1782 CysSerThrSerGlnHisArgLeuGlyLysAspSerProSerAsnLysLeuLeuTyAla 1801  
 DB 1995 TGCTCATCTCTGACCTGAGCTGGGCAAGATTCGCCAACCACCAAGCTCTTCAACGC 2054  
 QY 1802 LysAspIleProSerTyTrLysAsnTrpValaGluArgTyTrSerAspIleGlyLysMet 1821  
 DB 2055 AAGGATATTCCTGAGTACCGGAAGATCGTCAAGCCCTACTACAGACATCCAGACATG 2114  
 QY 1822 ProAlaIleSerAspGlnAspMetAsnAlaTyTrLeuAlaGlnLysArgNheHisMet 1841  
 DB 2115 AGCGCGCTCAGGAGGAGAAAGATGATGATGCCATTCGCGAGAGTCCAGGAATACCAAG 2174  
 QY 1842 AsnGluPheAsnThrMetSerAlaLeuSerArgIlePheSerTyValGlyTyTrSer 1861  
 DB 2175 AATGAGTTTAAACACCAATGTGGCCATGTGCAGGATTTTAACTACGCCAAGGGATTCG 2234  
 QY 1862 GIUGIuIleuGlyProLeuAspHisAspAspGlnCysGlyLysGlnLysLeuAlaTyR 1881  
 DB 2235 CGCGAATCATGGCGCGCTGAGAGGCCAACCCCGAGGCCCGGAGACACCACTGACGAC 2294  
 QY 1882 LysLeuGluGlnValIleThrLeuMet 1890  
 DB 2295 AAGTTTGACAGAGTGTGGCTTGATG 2321

RESULT 9  
 US-08-306-691B-22  
 Sequence 22, Application US/08306691B  
 Patent No. 5734039  
 GENERAL INFORMATION:  
 APPLICANT: Calabretta, Bruno  
 APPLICANT: Skorski, Tomasz  
 TITLE OF INVENTION: ANTISENSE  
 TITLE OF INVENTION: OLIGONUCLEOTIDES TARGETING COOPERATING ONCOGENES  
 NUMBER OF SEQUENCES: 55  
 CORRESPONDENCE ADDRESS:  
 ADDRESS: Seidel, Gonda, Lavoigna & Monaco, P.C.  
 STREET: Two Penn Center, Suite 1800  
 CITY: Philadelphia  
 STATE: Pennsylvania  
 COUNTRY: U.S.A.  
 ZIP: 19102  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Diskette, 3.50 inch, 720 KB  
 COMPUTER: IBM PS/2  
 OPERATING SYSTEM: MS-DOS  
 SOFTWARE: WordPerfect 5.1  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/306,691B  
 FILING DATE: September 15, 1994  
 CLASSIFICATION: 514  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER:

FILING DATE:  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Nonaco, Daniel A.  
 REGISTRATION NUMBER: 30,480  
 REFERENCE/DOCKET NUMBER: 8321-8  
 TELECOMMUNICATION INFORMATION:  
 TELEPHONE: (215) 568-8383  
 TELEFAX: (215) 568-5549  
 TELE: No. 5734039e  
 INFORMATION FOR SEQ ID NO: 22:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 4626 base pairs  
 TYPE: nucleic acid  
 STRANDEDNESS: double  
 TOPOLOGY: linear  
 US-09-306-691B-22

Alignment Scores:  
 Pred. No.: 2,86e-57 Length: 4626  
 Score: 629.50 Matches: 282  
 Percent Similarity: 35.47% Conservative: 204  
 Best Local Similarity: 20.58% Mismatches: 409  
 Query Match: 6,308 Indels: 475  
 DB: 1 Gaps: 59

US-09-964-956-13 (1-1896) x US-08-306-691B-22 (1-4626)

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 DB 375 CACATTTTCCTTGGTCCACTAATCATTTATGTTTAAAGAGAAAGCTTCAGAG 434  
 QY 81 LeuValThraHsGluThrGlyProAspGluAspAsnProLysCysTyProProArgile 100  
 DB 435 GTTGCTGAGTAAAGAGCTGGCCCTGCTGGAACCCAGATTGTTCCCA----- 485  
 QY 101 ValGlnThrCysAsnGluProLeuThrThr-----AspAsnValAsn 115  
 DB 486 TGTCTGAGCTGACGAGCAAGCCAAATTTATCAGAGGCTTTGAAAGATACATCAAC 545  
 QY 116 LysMetLeuLeuLeuAsp--TyTyLysGluAsnArgLeuLeuLeuLysGlySerLeuTy 134  
 DB 546 ATGGCTCTAGTGTGACACACTAATATGATGATCAACTATTGATGCGCAGCTCAAC 605  
 QY 135 GlnGlyTyrCysLysLeuLeuArgLeuGluAspLeuPheLysLeuGluProGlyHis 154  
 DB 606 AGAGGAGCTGCCAG-----CGACATGCTTT-----CCCCACAT 641  
 QY 155 LysLysGluHisTyLeuSerGlyValAsn-----GluSer 166  
 DB 642 CATACTGCTGACATACATGCGAGGTTCACTGCATATTCTCCCAAGATGAAGAGCC 701  
 QY 167 GlySerValPheGlyValLeuValSer-----TyrSerAsnLeuAsp 180  
 DB 702 AGCCAGTCTCTGACTGTGTGTGAGCGCCCTGGAGCCAAAGTCTTTCATCTTAAAG 761  
 QY 181 AspLys-----LeuPheLeuLeuThraValaAspGlyLysProGluTyPhePro 197  
 DB 762 GACCGTTCATCAACTCTTTGAGGCAATACCAATAATCT-----TCTTATTCCCA 815  
 QY 198 -----ThrlSerSerArgLysLeuThrLysAsnSerGluAlaAspGly 212  
 DB 816 GATCATCCATTCATTCATCATCATCATGAGAGAGCTTAAGAGAAACGAAA-----GATGGT 869  
 QY 213 MetPheAlaTyValaPheHisAspGluPheValAlaSerMetLeuTyLeuProSerAsp 232  
 DB 870 ---TTATGTTTTCGAGCAAGCTCTCAATT----- 899  
 QY 233 ThrPheThrlLeuLeuProAspPhe-----AspLeuTyTyValTyValTyPhe 248  
 DB 900 ---GATGTTTACCTGAGTTACAGAGATTCCTTAACCCATTAAGATATGATCCATCCCTTT 953  
 QY 249 SerSerGlyAsnPheValTyPheLeuThrlLeuGlnProGluMetValSerProGly 268

DB 954 GAAAGCAACATTTTATTACTTCTGACGCTCCAAAGGAA----- 995  
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 QY 289 AlaPheAsnSerTyValGluValProIleGlyCys-----Glu 301  
 DB 1053 GSATTCATTCCTAATCAAGAAATGCTCTGAGTGTATTCTCACAGAAAAGAGAAAAG 1112  
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 QY 480 ProValLeuArgAspMetAlaPheSerLysAspHisGluGlnLeuTyTrlMetSerGlu 499  
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 QY 520 LeuGlySerGlyAspProHisCysGlyTyPheCysValLeuHisAsnThrCysTrpArgLys 539  
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 QY 557 GlnCysValaArgLeuThraHisProAsnAsnLysSerValSerGlnTyPheAsnValLeu 576  
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 DB 1506 CTCTTAACATCTATATCACTTCATTAAGAGAGACTC-----ACC 1547  
 QY 595 PheGluAspLeuSerGluMetAspGlyLeuValaValGlyAsnGlnIleGlnCysTyPheSer 614  
 DB 1548 ATACCTAATCTTGGACATCAGAGAGGTCCTTCATGAGAGTGTGTTCTTCATCAGAGA 1607



QY 615 ProAlaAlaIysGluValProArgIleIleThrGluAsnGlyAspHisIleValGln 634  
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 QY 635 LeuIleuIysSerIysGluThrGlyMetThrPheAlaSerThrSerPheValPheTyr 654  
 Db 1652 ----- 1652  
 QY 655 AsnCysSerValHisAsnSerCysLeuSerCysValGluSerProTyrArgCysHisTyr 674  
 Db 1653 -----TCTCCA----- 1658  
 QY 675 CysIysTyrArgHisValCysThrHisAspProIysThrCysSerPheGlnGluTyr 694  
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 QY 695 ValIysLeuProGluAspCysProGlnLeuLeuArgValAspIysIleLeuValProVal 714  
 Db 1658 ----- 1658  
 QY 715 GluValIleIysProIleThrLeuIysAlaIysAsnLeuProGlnProGlnSerGlyGln 734  
 Db 1659 GAAGGATGTGTGAGCATACATTA-----ACCAG 1688  
 QY 735 ArgGlyTyrGluCysIleLeuAsnIleGlnGlySerGluGlnArgValProAlaLeuArg 754  
 Db 1689 AATGGCTACACAGCTGTTATCACT----- 1712  
 QY 755 PheAsnSerSerValGlnCysGlnAsnThrSerTyrSerTyrGluGlyMetGluIle 774  
 Db 1713 -----GGAGAGAGATC 1724  
 QY 775 AsnAsnLeuProValGluLeuThrValValTyrAsnGly-----HisPheAsn 790  
 Db 1725 ACGAAGATCCCATTC-----AATGGCTTGGGCTGCAGACATTC--- 1763  
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 Db 1764 -----CAGTCC 1769  
 QY 811 CysGlyLeuCysIleLeuValAlaAspProAspPheAlaCysGlyTyrCysGlnGlyProGly 830  
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 QY 831 GlnCysThrLeuArgGlnHisCysProAlaGlnGlnSerGlnTyrLeuGluLeuSerGly 850  
 Db 1824 AATGTGTGCATCGAGGAATGC-----CTGAGCGGG 1856  
 QY 851 AlaIysSerIys-----CysThrAsnProArgIleThrGluIleIleProValThrGly 868  
 Db 1857 ACATGACTCAACAGATCTGCTG-----CTGCATCTCAAGAGTTTCCCAATATGCA 1913  
 QY 869 ProArgGluGlyGlyThrIysValThrIleArgGlyIysAsnLeuGlyLeuGluPheArg 888  
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 Db 2079 GCCATGAATTAAGCATTTTC-----AATATGTCCATTAATTAATTAATGCGCAGGACACA 2135  
 QY 944 ArgSerSerGlnLeuTyrTyrPheMetThrLeuThrLeuSerAspLeuIysProSerArg 963  
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QY 964 GlyProMetSerGlyGlyThrGlnValThrIleThrGlyThrAsnLeuAsnAlaGlySer 983  
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 Db 2610 GTGGCATGCAACATGCTCTTATTCAGATTAATCTTTGTACACATCTTCCCTG--- 2666  
 QY 1103 LeuGlyProAspHisGlnSerAspLeuThrGluArgProGluGluPheGlyPheIleLeu 1122  
 Db 2667 -----CAACAGCTAATCTGCACATCCCTCGAAGAACCAAGCCCTT---TTCAATGTA 2717  
 QY 1123 AspAsnValGlnSerLeuLeuIleLeuAsnIysThrAsnPheThrTyrTyrProAsnPro 1142  
 Db 2718 GATGGATCTCTTCCAAATCTT-----GATCTCATTTATGTACATATCT 2765  
 QY 1143 ValPheGluAlaPheGlyProSerGlyIleLeuGluLeuIysProGlyThrProIleIle 1162  
 Db 2766 GTGTTTAAGCTTTGAAAGCCAGTGAATGATCTCAATGAGGCAATGAATGATCTGAA 2825  
 QY 1163 LeuIysGlyIysAsnLeuIleProProValAlaGlyIysAsnValIysLeuAsnTyrThr 1182  
 Db 2826 ATTAAAGGAATGATATTAAGCTTGAAGCAGTTAAAGGTGAAGT--- 2870  
 QY 1183 ValIleuValGlyIysProCys-----ThrValThrValSerAspValGlnLeuLeuCys 1201  
 Db 2871 TTAAGAGTTGAATATGAGCTGTGAATATATACCTTAATTCGAGCCGTTTATAGC 2930  
 QY 1202 GluSerProAsn-----LeuIleGlyArgHisIysValMetAlaArgValGlyIysMetGlu 1220  
 Db 2931 ACGGTCCCAATGACCTGTGAATTTGAACACGAGCTA-----AATTTAGAG 2978  
 QY 1221 TyrSerPro-----GlyMetValIyrIleAlaProAspSerPro 1233  
 Db 2979 TGGAGACAGCAATTTCTTCAACGCTCTGAAAAAGTATATGTTCAACAGATCAGAT 3038  
 QY 1234 LeuSer-----LeuProAlaIleValSerIleAlaValAlaGlyIysLeuLeuIleIle 1251  
 Db 3039 TTCACAGATGATGCTGTGTTCTTCAATATCAACAGCAGCTGTATTAATCTACTGCG 3098  
 QY 1252 PheIleValAlaValLeuIleAlaTyrIysArgIysSerArgIysLeuSerLeuThrLeu 1271  
 Db 3099 TTTTCTGCTGTGCTGAAAAGAAAGAAACAATTAAGATCTGGAGCAATTAATGATTCG 3158  
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 Db 3159 TACGATGACAGATGACACCTCTCATTTGATGAGCTTTGATGAGCCGGAAGTGAAC 3218  
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Db      3219 CCAACTACAGAAAGGTTCAAT----- 3242
Qy      1312 IleProPheLeuAspTyrArgThrTyrThreMetArgValLeuPheProGlyIleGluAsp 1331
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RESULT 10
PCT-US93-06251-27
Sequence 27, Application PC/TUS9306251
GENERAL INFORMATION:
APPLICANT: Wickstrom, Eric and Rife, Jason P.
TITLE OF INVENTION: Trivalent Synthesis of oligonucleotides containing
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
ADDRESSER: SCULLY, SCOTT, MURPHY & PRESSER
STREET: 400 Garden City Plaza
CITY: Garden City
STATE: NY
COUNTRY: USA
ZIP: 11530
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/06251
FILING DATE: 19930630
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Digilio, Frank S.
REGISTRATION NUMBER: 31,346
REFERENCE/DOCKET NUMBER: 8586
TELEPHONE: 516-742-4343
TELEFAX: 516-742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
LENGTH: 4626 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
PCT-US93-06251-27

Alignment Scores:
Pred. No.: 2,86e-57 Length: 4626
Score: 629.50 Matches: 282
Percent Similarity: 35.47% Conservative: 204
Best Local Similarity: 20.58% Mismatches: 409
Query Match: 6.30% Indels: 475
Gaps: 59
DB:

US-09-964-956-13 (1-1896) x PCT-US93-06251-27 (1-4626)
Qy      62 HisIleTyrLeuGluValAlaValAsnArgIleTyrIysLeuSer---SerAspLeuIysVal 80
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Qy      81 LeuValThrHisGluThrGlyProAspGluAspAsnProIysCysTyrProProArgIle 100
Db      435 GTTGCTGAGTACAGAGCTGGGCTGTGCTGGAACACCCAGATGTGTTCCA----- 485
Qy      101 ValGlnThrCysAsnGluProLeuThrThrThr-----AsnAsnValAsn 115
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Qy      116 LysMetLeuLeuIleAsp---TyrIysGluAsnArgLeuIleAlaCysGlySerLeuTyr 134
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Qy      155 LysLeuGluHisTyrLeuSerGlyValAsn-----GluSer 166
Db      642 CATACGTGACATACAGTCGAGGCTCATCTCATATTCCTCCACAGATAGAGAGCCC 701
Qy      167 GlySerValPheGlyValIleValSer-----TyrSerAsnLeuAsp 180
Db      702 AGCCAGTGTCTGACTGTGTGTGAGCGCCCTGGAGCCAAAGTCTTTCATCTGTAAAG 761
Qy      181 AspLys-----LeuPheIleAlaThrAlaValAspGlyLysProGluTyrPhePro 197
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Qy      233 ThrPheThrIleIleProAspPhe-----AspIleTyrTyrValTyrGlyPhe 248
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Qy      249 SerSerGlyAsnPheValTyrPheLeuThrLeuGlnProGluMetValSerProGly 268
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Qy      269 SerThrThrLysGluGlnValTyrThrSerLysLeuValArgLeuCysIysGluAspThr 288
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Qy      302 ArgSerGlyValGlu-----TyrArgLeuLeuGlnAlaAlaTyrLeuSerLysAlaGly 319
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Qy      320 AlaValLeuGlyArgThrLeuGlyValHisProAspAspAspLeuLeuPheThrValPhe 339
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 QY 635 LeuGlnLeuLysSerLysGluThrGlyMetThrPheAlaSerThrSerPheValPheTyr 654  
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 QY 655 AsnCysSerValHisAsnSerCysLeuSerCysValGluSerProTyrArgCysHisTyr 674  
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 QY 675 CysLeuTyrArgHisValCysThrHisAspProLysThrCysSerPheGlnGluLysArg 694  
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 Db 1658 ----- 1658  
 QY 695 ValIleLeuProGluAspCysProGlnLeuLeuArgValAspLysIleLeuValProVal 714  
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 QY 735 ArgGlyTyrGluCysIleLeuAsnIleGlnGlySerGluLysArgValProAlaLeuArg 754  
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 1689 AATGGCTTACACATGTTACT----- 1712  
 QY 755 PheAsnSerSerSerValGlnCysGlnAsnThrSerTyrSerTyrGlnGlyMetGluIle 774  
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 1713 -----GGGAAGAAAGATC 1724  
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 QY 775 AsnAsnLeuProValGluLeuThrValValTyrAsnGly-----HisPheAsn 790  
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 1725 ACGAAGATCCCATTTG-----AATGGCTTGGCGTCGACAGACATTTTC-- 1763  
 QY 791 IleAspAsnProAlaGlnAsnLysValHisLeuTyrLysCysGlyAlaMetArgLysSer 810

Db 1764 ----- 1769  
 QY 811 CysGlyLeuCysLeuLysAlaAspProAspPheAlaCysGlyTyrCysGlnGlyProGly 830  
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 1770 TGCAAGCATATGCTCTCTCCGCCACCCCTTGTTCAGTGTGGCTGGGCCAC-----GAC 1823  
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 1824 AATGTGTGCGATCGAGAAATGC-----CTGAGCGG 1856  
 QY 851 AlaLysSerLys-----CysThrAsnProArgIleThrGluIleIleProValThrGly 868  
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 1857 ACATGACATCAAGATCTGTCTG-----CTGCAATTCACAGGTTTCCCAATAGTGA 1913  
 QY 869 ProArgGlnGlyGlyThrLysValThrIleArgGlyLysAsnLeuGlnLeuGluPheArg 888  
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 1914 CCCCTTGAAGAGGGAAGAGCGTGCATATGTGGCTGGACCTTTGGA-----TTTCGG 1967  
 QY 889 -----AspIleAlaSerHisValLysValAlaGlyValGluCysSerPro 903  
 |||||  
 1968 AGGAATATATTAATTTGATTTAAAGAAAGTAAAGTTCCTTGGAATAGAGCTGCACC 2027  
 QY 904 LeuValAspGlyTyrIleProAlaGlnGlnIleValCysGluMetGlyGluLysPro 923  
 |||||  
 2028 TTGACTTAAAGTGAAGACAGATGATATACATTGAAATGACAGTTTGT-----CCT 2078  
 QY 924 SerGlnHisAlaGlyPheValGluIleCysValAlaValCysArgProGluPheMetAla 943  
 |||||  
 2079 GCATGATATAGGATTTTC-----AATATGTCATATATTTTCAAAATGCCAGCGGACAA 2135  
 QY 944 ArgSerSerGlnLeuTyrTyrPheMetThrLeuThrLeuSerAspLeuLysProSerArg 963  
 |||||  
 2136 CAATACAGTACATTCCTCAT-----GTGATCTCGTAATTAACAAGTATTTGCGGAATAC 2192  
 QY 964 GlyProMetSerGlyGlyThrGlnValThrIleThrGlyThrAsnLeuAsnIleLysArg 983  
 |||||  
 2193 GGTCCATGTGGCTGGGCACTTACTTACTTAACTGGAATTAACCTTAACAGTGGGAAT 2252  
 QY 984 AsnValValAlaMetPheGlyLysGlnProCysLeuPheHisArgArgSerProSerTyr 1003  
 |||||  
 2253 TCTAAGACATTTCAATGTGTGAAAGACATGATCTTAAAGTGTGCCAAACATAT 2312  
 QY 1004 IleValCysAsnThrThrSerSerAspGluValLeuGluMetLysValSerValGlnVal 1023  
 |||||  
 2313 CTTGAATGTTATCCCGGAGCCCAACCATTTCACTGAGTGTCTGTATAATTTGAATAAT 2372  
 QY 1024 AspArgAlaLysIleHisGlnAspLeuValPheGlnTyrValGluAspProThrIleVal 1043  
 |||||  
 2373 GACTTACCAAC---CGAGAGACAGCATTTCAATTACCGGTGAAGATCCCATTTGCTAT 2429  
 QY 1044 ArgIleGluProGluTyrPheIleVal----- 1052  
 |||||  
 2430 GAATTCATCCAAACAATCTTTATTAAGTCTGTGGAAAGAACCTTCAACATTTTC 2489  
 QY 1053 -----SerGlyAsnThrProIleAlaValTyrGlyThrHisLeu 1065  
 |||||  
 2490 AGTTTTCATTTTGTCTTGGCAGTGTGGGAGGACATATACAGGTGTGGGAAACCTG 2549  
 QY 1066 AspLeuIleGlnAsnProGln-----IleArgAlaLysHisGlyGlyLysGlnHisIle 1083  
 |||||  
 2550 AATTCAGTTAGTGTCCCGAAGATGCTCATTAATGTGATGATAGACAGAGAGAACTTTTACA 2609  
 QY 1084 AsnIleCysGluValLeuAsnAlaThrGlu--MetThrCysGlnAlaProAlaLeuAla 1102  
 |||||  
 2610 GTGGCATGTCAACATGCTTATATCAAGATATATGTTGTAACACTCTTCCCTG--- 2666  
 QY 1103 LeuGlyProAspHisGlnSerAspLeuThrGluArgProGluGluPheGlyPheIleLeu 1122  
 |||||  
 2667 -----CAACAGCTGATTCGAACCTCCCTGAAACCAAAACCTTT---TTCAATGTA 2717  
 QY 1123 AspAsnValGlnSerLeuLeuIleLeuAsnLysThrAsnPheThrTyrTyrProAsnPro 1142

Db 2718 GATGGGATCCTTCCAAATACTTT-----GATTCATTATTAATGATCAATTCCT 2765  
 Qy 1143 ValPheGluAlaPheGlyProSerGlyIleLeuGluLeuLysProGlyThrProIleIle 1162  
 Db 2766 GTGTTTAAGCTTTTGAAGAACCGCATGATGATCTCAATGGGCAATGAATAATGATCGGAA 2825  
 Qy 1163 LeuLysGlyLysAsnLeuIleProProValAlaGlyLysValLysLeuAsnIleThr 1182  
 Db 2826 ATTAAGGGAATGATATATGACCTGGAAGCAGTTTAAAGTAAAGTGG----- 2870  
 Qy 1183 ValLeuValGlyLysProCys---ThrValThrValSerAspValGlnLeuLysCys 1201  
 Db 2871 TTTAAAGTTGAAATTAAGAGCTGAGAAATTAACCTTACCTTGTGAAGCCGTTTATGC 2930  
 Qy 1202 GluSerProAsn---LeuIleGlyArgHisLysValMetAlaArgValGlyLysMetGlu 1220  
 Db 2931 ACGGTCCCATGACCTGCTGAATTAAGACAGAGCTA-----AATATAGAG 2978  
 Qy 1221 TyrSerPro-----GlyMetValIleAlaIleAlaProAspSerPro 1233  
 Db 2979 TGGAGCAGACGAATTTCTTCAACCGTCTTGGAAAAGTAAATGATTCACCAAGATCAAAAT 3038  
 Qy 1234 LeuSer-----LeuProAlaIleValSerIleAlaValAlaGlyLysLeuLeuIle 1251  
 Db 3039 TTTCACAGATTGATTCGTGCTGTGTCTCAATTAACACAGCAGCTGTATTACTTCTGGG 3098  
 Qy 1252 PheIleValAlaValLeuIleAlaTyrLysArgLysSerArgLysSerAspLeuThrLeu 1271  
 Db 3099 TTTTTCCTGCTGGCTGAAAAGAAAGAAAGCAATTAAGATCTGGCAGAGTAATTGCTTGC 3158  
 Qy 1272 LysArgLysGluMetGlnMetAspAsnLeuGluSerArgValAlaLeuGluCysLysGlu 1291  
 Db 3159 TACAGTGAAGAGTACACACTCCATCTTGGATAGGCTGTGAAGCCCGAAGGTAAAGC 3218  
 Qy 1292 AlaPheAlaGluLeuGlnThrAspIleHisGluLeuThrSerAspLeuAspGlyAlaGly 1311  
 Db 3219 CCAACTACAGAAATGTTTCAAAAT----- 3242  
 Qy 1312 IleProPheLeuAspTyrArgThrTyrThrMetArgValLeuPheProGlyIleGluAsp 1331  
 Db 3243 ---GAATCTGATGACTTACCGAGCTACTTTCCAGAAGATCACTTCCATTAATCATCTCAG 3299  
 Qy 1332 HisProValLeuArgAspLeuGluValPro 1341  
 Db 3300 AACGGTTATGCCGACAAAGTGCAGATATCCT 3329  
 RESULT 11  
 US-09-300-958A-24  
 ; Sequence 24, Application US/09300958A  
 ; Patent No. 6495319  
 ; GENERAL INFORMATION  
 ; APPLICANT: McCelland, Michael  
 ; APPLICANT: Welsh, John  
 ; APPLICANT: Tremble, Thomas  
 ; TITLE OF INVENTION: Reduced Complexity Nucleic Acid Targets and Methods of  
 ; FILE REFERENCE: P-PH 3457  
 ; CURRENT APPLICATION NUMBER: US/09/300,958A  
 ; PRIOR FILING DATE: 1999-04-27  
 ; PRIOR APPLICATION NUMBER: 60/083,331  
 ; PRIOR FILING DATE: 1998-04-27  
 ; PRIOR APPLICATION NUMBER: 60/098,070  
 ; PRIOR FILING DATE: 1998-08-27  
 ; PRIOR APPLICATION NUMBER: 60/118,624  
 ; PRIOR FILING DATE: 1999-02-04  
 ; NUMBER OF SEQ ID NOS: 85  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 24  
 ; LENGTH: 2433  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 ; US-09-300-958A-24

Alignment Scores:  
 Pred. No.: 3,226-24  
 Score: 323.00  
 Percent Similarity: 36.19%  
 Best Local Similarity: 21.35%  
 Query Match: 3,23%  
 DB: 4  
 Gaps: 42  
 US-09-964-956-13 (1-1896) x US-09-300-958A-24 (1-2433)  
 Qy 36 LysGlnArgSerPheValThrPheArgGlyGluProAlaGluGlyPheAsnHisLeuVal 55  
 Db 1 GAAGAAAGGCTGATTAGAAAATTTGAACCTGAAAATCTCCAACTCAAGCGCCCTTGTG 60  
 Qy 56 ValAspGluArgThrGlyHisIleTyrLeuGlyAlaValAsnArgIleTyrLysLeuSer 75  
 Db 61 CTGAGCCAGAGTGAAGAAAGCCTGTAATGTGGGGGCCCGAGAGGCCCTCTTGCACTTAAC 120  
 Qy 76 SerAspLeuLysValLeuValThrHisGlu-----ThrGlyProAspGlu 90  
 Db 121 AGCAACCTCAGCTTCTTGCCAGCGGAGTACCAAGAGCTACTGTGAGTGCAGATGCT 180  
 Qy 91 AspAsnProLysCysTyrProProArgIleValGlnThrCysAsn-----Glu 106  
 Db 181 GACAGGAG-----CAGCAGTCAGACTTCAAGGCGCAAGAC 216  
 Qy 107 ProLeuThrThrAsnAsnValAsnLysMetLeuLeuIleAspTyrLysGluAsnArg 126  
 Db 217 CCAAGCGAGCTGTGAAAACTACATCAAGATCTCTCTG---CCACTCAACAGCAGCCAC 273  
 Qy 127 LeuIleAlaCysGly---SerLeuTyrGlnGlyIleCysLysLeuLeuArgLeuGluAsp 145  
 Db 274 CTGCTCAGCTGTGGCAGCGGCCGCTTACAGCCCTGTGTGCTTACATTACATAGGAGAC 333  
 Qy 146 LeuPheLysLeuGlyGluProTyrHisLysLysGluHisTyrLeuSerGlyValAsnGlu 165  
 Db 334 ---TTTACTTTAGCCCA-----GATGAG 354  
 Qy 166 SerGlySerValPheGlyValIleValSerTyrSerAsnLeuAsp----- 180  
 Db 355 GCCGTAATGTCACT-----CTGGAGGATGCCAAGGCTCAT 390  
 Qy 181 ---AspLysLeuPheIleAlaThrAla-----ValAspGlyLysProGluTyr 195  
 Db 391 TGTCCCTTTGACCCCACTTCAAGTCCAGCGCTCTGTGTGATGTGT-----GAGCTG 444  
 Qy 196 Phe-----ProThrIleSerSerArgLysLeu 204  
 Db 445 TACACGTGAACAGTCACTGAGCTTCCAGGAAACGACCCAGCCATTTCCCGAGCCAGAGT 504  
 Qy 205 ThrLysAsnSerGluAlaAspGlyMetPheAlaTyrValPheHisAspGluPheValAla 224  
 Db 505 TCCGCCCCCACAAGACTGAGAGCTCCCTCACTGACTGACACAAACCTCGCTTTGGGCC 564  
 Qy 225 SerMetIleLysIleProSerAspThrPheThrIleIleProAspPheAspIleTyrTyr 244  
 Db 565 TCGGCTACGTCGCCCGAGAGCTGTGGGACGCCCATGATGATGATAGATCACTTCTTC 624  
 Qy 245 ValTyrGlyPheSerSerGlyAsnPheValTyrPheLeuThrLeuGlnProGluMetVal 264  
 Db 625 TTCTTCAGCAGACGGGCGCAGAGTTTGAGTCTTT----- 660  
 Qy 265 SerProProGlySerThrThrLysGluGlnValTyrThrSerLysLeuValArgLeuCys 284  
 Db 661 -----GAGAACAACATGCTGTCCGAGTTGCCAGTCTGT 696  
 Qy 285 LysGluAspThrAla-----PheAsnSerTyrValGluVal 296  
 Db 697 AAGGCGCATGAGGCTGAGAGCGGGTGTGCAGAACGCTGACCTCTTCTTCAAGGCT 756  
 Qy 297 ProIleGlyCysGluArg-----SerGlyValGluTyrArgLeuLeuGlnAlaIleTyr 314  
 Db 757 CAGCTCTGTGCTCCGCGCCGATGATGATGCTTCCCTTAAAGTCAAGATGTCTTC 816

QY 315 LeuSerIysAlaGlyAlaValLeuGlyValThrLeuGlyValHisProAspAsp----- 332  
 Db 817 -----ACCTGAAACCCCAACCTCCAGGATTGGCGC 846  
 QY 333 ---AspLeuLeuPheThrValPheSerIysGlyIleuAspGlyMetIysSerLeuAsp 351  
 Db 847 AAGACCCCTTTCTATGGGGCTTTTACCTCCAGTGGACACA-----GGACCAACAAGA 900  
 QY 352 GluSerAlaLeuCysIlePheIleLeuIysGlnIleAsnAspArgIleIysGluArgLeu 371  
 Db 901 GGCTCCGACCTGCTGCTTCCACCATG-----AATGAT---GTGCAGAAAGACCTTT 948  
 QY 372 GlnSerCysTyrArgGlyGluGlyThrIleuAspLeuAlaTyr---LeuIysValIlyAsp 390  
 Db 949 GAGGCGCTGTACAAAGATAAAGTAACAGAGACACAGCGTGTATACCGAGACCCACAG 1008  
 QY 391 IleProCysSerSerAlaLeuLeuThrIleAspAsnAspPheCysGlyLeuAspMetAsn 410  
 Db 1009 GTGCCCAACACCGCGCGCGAGCGTGCATTTACAAACAGTGCCTGGGAAACGAGATCAAC 1068  
 QY 411 AlaProLeuGlyValSerAsp----- 417  
 Db 1069 TCGTCCCTGACCTCCCAAGACGAGTGTAACTTCTCAAGATCACTTCTTATGAGT 1128  
 QY 418 ---MetValArgGlyIleProValPheThrGluAspArgAspArgMetThrSerValIle 436  
 Db 1129 GGGCAGGTCCGAGTCCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1188  
 QY 437 AlaTyr-----ValTyrIysAsnHisSerLeuAlaPheValGlyThrIlySer 452  
 Db 1189 GTGCACCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1248  
 QY 453 GlyIysLeuIysIleArgValAspGlyProArgGlyAsnAlaLeuGlyTyrGluThr 472  
 Db 1249 GGGCGCTCCACAAAGACAGTACCTGAGCTCCAGATCCAGATCCATATT-----GAGAG 1302  
 QY 473 ValGlnValAlaAspProGlyProValIleuArgAspMetAlaPheSerIysAspHisGlu 492  
 Db 1303 CTGCAGATCTTCTCCCAAGACGAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1362  
 QY 493 GlnLeuTyrIleMetSerGlnArgGlnLeuThrArgValProValGluSerCysGlyGln 512  
 Db 1363 CTGTTGATGCTCTCTCCATTCCGGGAGTGGCAAGTGGCCGTTAGCCAACTGACGCTG 1422  
 QY 513 TyrGlnSerCysGlyGlnCysLeuGlySerGlyAspProHisCysGlyTyr----- 529  
 Db 1423 TACCAACCTGTGAGACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1482  
 QY 530 ---CysValLeuHisAsnThr----- 535  
 Db 1483 GCCTGAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1542  
 QY 536 -----CysThrArgIysGlyArgCysGluArgSerIysGluProArgIysPheAla 552  
 Db 1543 ATTGAGGCTGACAGTGTCAAGAACTCTGCAAGAAATTCCTCATACAGGCCCGGTTTCTT 1602  
 QY 553 SerGluMetIysGlnCysValArgLeuThrValHisProAsnAsnIleSerValSerGln 572  
 Db 1603 GTGCCAGGTAAAGCATTAACAGATCCAGATCCAAACAAACAGTAGAACCTGAGCC 1662  
 QY 573 TyrAsnValLeuLeuValLeuGluThr-----TyrAsnValProGluLeuSer 588  
 Db 1663 TGGCCACTGCTGTCAAACTGGACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1722  
 QY 589 AlaGlyValAsnIysThrPheGluAspLeuSerGluMetAspGlyLeuValValGlyAsn 608  
 Db 1723 GCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1776  
 QY 609 Gln-----IleGlnCys----- 612  
 Db 1777 CAGCAGGTTTGGGGGTGTTCCAGTGTGTGTCATAGAGAGAGATTCACAGACCTGTG 1836

QY 613 -----TyrSerProAlaAlaIysGlu----- 619  
 Db 1837 GCCAGTACTGCCCCAGAGGTATGAGAGAGGGGTATGACCAAAAGACAGCGTAT 1896  
 QY 620 ---ValProArgIleIle-ThrGluAsnGlyAspHisIleValValGlnLeuGlnLeu 638  
 Db 1897 GGNACCCAGCATTTATCAACA-----CATCAGAGTAGAGTGCACCGGCTGCT 1944  
 QY 638 SerSerGluThrGlyMetThrPheAlaSerThrSerPheValPheTyrAsnCysSerVal 658  
 Db 1945 GGCAGGACAGCTGGGGTCCGACAGTCTACTGAAATGAAATTCCTGATGTGACT 2004  
 QY 658 HisAsnSerCysLeuSerCysValGluSerProTyrArgCysHisTyrCysIysTyr 678  
 Db 2005 C-----TGTTGTGTTGCTA-----TGATGC----- 2026  
 QY 678 GlnIleValCysThrHisAspProIysThrCysSerPheGlnGlu----- 692  
 Db 2027 ---TTTGT-----TTCTGTTCTTCTTACCCGATCCGAGTGGATGGCATG 2067  
 QY 693 -----GlyArgValIysLeuProGluAspCysProGlnLeu----- 704  
 Db 2068 AAACCTTCTTAAGAGGGCGAGGTGCTCCAGTGTGCACCCCAAGATCGCCCTATAGT 2127  
 QY 705 -----LeuArgValAspIleLeuValProValGluValIleIysProIleThrIle 722  
 Db 2128 CTACCACTTGAGACCGGACCGCTGTAATGTGTGCGGCTCTTACGACCCCACTTGAAC 2187  
 QY 722 uIysAlaIysAsnLeu-----ProGln---ProGlnSerGly-----G 734  
 Db 2188 CAGGCTTACAGGCTGTGTGTGATAGCTCCAGAGGCCAGAGTCTTCACTGATCAGAG 2247  
 QY 734 nArgIlyTyr-----GluCysIleLeuAsnIleGlnIlyse 746  
 Db 2248 AAGAGGCCATGATGATCCAGAGACAGCTTGTAGAGTGTCTCCGTGTGCTCCGCGCC 2307  
 QY 746 rGlu 747  
 Db 2308 CAGG 2311  
 Db 2308 CAGG 2311  
 RESULT 12  
 US-09-077-940A-3  
 : Sequence 3, Application US/09077940A  
 : Patent No. 6576441  
 : GENERAL INFORMATION:  
 : APPLICANT: KIMURA, Toru et al.  
 : TITLE OF INVENTION: NOVEL SEMAPHORIN 2 AND GENE ENCODING THE SAME  
 : FILE REFERENCE: 0020-4426P  
 : CURRENT APPLICATION NUMBER: US/09/077,940A  
 : NUMBER OF SEQ ID NOS: 20  
 : SOFTWARE: PatentIn version 3.1  
 : SEQ ID NO 3  
 : LENGTH: 3524  
 : TYPE: DNA  
 : ORGANISM: Homo sapiens  
 : FEATURE:  
 : NAME/KEY: 5'UTR  
 : LOCATION: (1)..(38)  
 : OTHER INFORMATION:  
 : NAME/KEY: 3'UTR  
 : LOCATION: (2706)..(3524)  
 : OTHER INFORMATION:  
 : NAME/KEY: CDS  
 : LOCATION: (39)..(2702)  
 : OTHER INFORMATION:  
 : US-09-077-940A-3  
 Alignment Scores:  
 Pred. No.: 2,46e-17 Length: 3524  
 Score: 263.00 Matches: 144  
 Percent Similarity: 36.91% Conservative: 90  
 Best Local Similarity: 22.71% Mismatches: 208

Query Match: 2.63% Indels: 192  
 DB: 4 Gaps: 34  
 US-09-964-956-13 (1-1896) x US-09-077-940A-3 (1-3524)

QY 11 LeuLeuSerHisLeuLeuMetValGlyMetGlySerThrLeuLeuThrArgGlnPro 30  
 DB 75 CTGCTGCTTCTGCTGCTACTGAGG---GGCGCCAGCGCTTCTTCTGAGACCG 131  
 QY 31 AlaProLeuSerGlnGlyArgSerPheValThrPhe----- 43  
 DB 132 CCGCCCTTACGCTGGCCCCCGAGGAGCTACCTGAACCACTATCCGCTGTTGGGAGC 191  
 QY 44 -----ArgGlyGlnProAlaGlnGlyPheAsnHisLeuValValAsp----- 57  
 DB 192 GGGCGCGGAGCGCTGACCCCGCAGAGGCTGACGACCTCAACATCAGAGGAGCTCG 251  
 QY 58 -----GlnArgThrGlyHisIleTyrLeuGlyValAlaAsnArgIleTyrIleLeu--- 74  
 DB 252 CGGGTCAACAGAGAG---CTGTCATTGGGAGACAGGAGCAACCTTACCGCGTAGAG 305  
 QY 75 -----SerSerAspLeuLysVal-----LeuValThrHisGlnThrGly 87  
 DB 306 CTGAGAGCCCCCAGCTCAGGAGCTGCGGTACAGAGAGAGCTGACCTGAGATATAC 365  
 QY 88 ProAspGlnAspAsnProLysCysTyrProProArgIleValGlnThrCysAsnGlnPro 107  
 DB 366 CCCAGCCACATAAAGCTGTGTCGATGAGGAGGCAACAGAGGCGAGTGTGCA----- 419  
 QY 108 LeuThrThrThrAsnAsnValAlaAsnLysMetLeuLeuIleAspTyrLysGlnAsnArgLeu 127  
 DB 420 -----AACTTCGTAAGAGTGTCTCTCTCTCGGAC-----GAGTCCAGCTTC 461  
 QY 128 ILeAlaCysGlySer---LeuTyrGlnGlyIleCysIleLeuLeuArgLeuGlnAspLeu 146  
 DB 462 TTGTGTGGCGGTCCAAAGCCTTCAACCGCGTGTGGCCCAACTACAGCACTAGACCCCTG 521  
 QY 147 PheIleLeuGlnGlyLeu-----ProPyrHisLysIleValHis 158  
 DB 522 CAGCCCTCGAGAGCAACATCAGCGGTATGCGCCGCTGCCCGTACAGCCCAAG---CAC 578  
 QY 159 TyrLeuSerGlyValAlaGlnIleSerGlySerValPheGlyValIleValSer----- 175  
 DB 579 GCCAATTGTGCCCTCTCTCTGACGGAGATGCTCTTACAGCTACTGTTACCGACTTCTCA 638  
 QY 176 -----TyrSerAsnLeuAspAspLysLeuPheIleAlaThrAlaVal 189  
 DB 639 GCCATTGATGCTGTCATCTACCGAGGCTCGGGAGACAG--- 677  
 QY 190 AspGlyLysProGlnIleTyrPheProThrIleSerSerArgLysLeuThrLysAsnSerGln 209  
 DB 678 -----CCCAACCTCGCGACCGTGAAA----- 698  
 QY 210 AlaAspGlyMetPheAlaTyrValPheHisAspGlnPheValAlaSerMetIleLysIle 229  
 DB 699 -----CATGAC-----TCCAAAGTGTTCMAAGAG 722  
 QY 230 ProSerAspThrPheThrIleIlePheProAspPheAspIleTyrTyrValIleTyrGlyPheSer 249  
 DB 723 CCT-----TACTTGTCCATGGCGGTGAG 746  
 QY 250 SerGlyAsnPheValTyrPheLeuThrLeuGlnProGlnMetValSerProProGlySer 269  
 DB 747 TGGGGAGAGCATGCTACTCTTCTTCCGGAGATTGCGATG-----GAGTTT 794  
 QY 270 ThrThrLysGlnGlnValIleTyrThrSerLysLeuValArgLeuCysLysGlnAspThrAla 289  
 DB 795 AACTACTCGAGAGAGGTGGTGTCTCCGCTGCGCCGAGTGTCCAGAGACAGCTGGGA 854  
 QY 290 -----PheAsnSerTyrValGlnValProIleGlyCys 300  
 DB 855 GGCTCCCCCGCTGTGAGAGACAGTGTGACGCTTCTTGAAGGCGCGCTCAACTGC 914

QY 301 GlnArgSerGly-----ValGlnTyrArgLeuLeuGlnAlaAlaTyrLeuSerLys 317  
 DB 915 TCTGTACCCGAGAGCTCCCATTTCTACTTCAACGTCTGCAGGCTTC----- 962  
 QY 318 AlaGlyAlaValLeuGlyArgThrLeuGlyValHisProAspAspAspLeuPheThr 337  
 DB 963 ACGGCGCTGGTC-----AGCTCGAGGCGCGGCC-----GGGTCTCTGCC 1004  
 QY 338 ValPheSerLysGlnLysArgLysMetLysSerLeuAspGlnSerAlaLeuCysIle 357  
 DB 1005 GTTTTTC-----ACCCAGACAGACATCCCTGGCTCGGCTGTGCGCC 1052  
 QY 358 PheIleLeuLysGlnIleAsnAspArgIleLysGlnArgLeuGlnSerCysTyrArgGly 377  
 DB 1053 TTTGACCTGACACAGGTGGAGCTGTGTTGAAGCGGC-----TTCCGAGAG 1100  
 QY 378 GlnGlyThrLeuAspLeuAlaTrpLeuLysValLysAsp-----IlePro----- 392  
 DB 1101 CAGAGTCCCGCCAGCTCATCTGAGACCGCGGTCCGAGATCAGTGCCTCGACCCCGG 1160  
 QY 393 -----CysSerSerAlaLeuLeuThrIleAspAspAsnPheCysGlyLeuAspMetAsn 410  
 DB 1161 CCCGGGTGCTCGCAGCC-----CCCGGAGTACAGTACAT 1196  
 QY 411 Ala-----ProLeuGlyValSerAspMetValArgGlyIleProValPheThr 426  
 DB 1197 GCTTCCAGCGCTTCCGAGATGACATCTCACTTGTCAAGACCACTCTGTATGAC 1256  
 QY 427 GlnAsp-----ArgAspArg 431  
 DB 1257 GAGGCGGTGCTCGTGGCCATGAGCCCTGTGATCTGTGCGAGCCCTGATAGGACACAG 1316  
 QY 432 MetThrSerValIleAlaTyrVal-----TyrLysAsnHisSerLeuAlaPhe 447  
 DB 1317 CTGACTCAGAGTGTGTGAGAGCTGAGACCGGCGCTTGGGCAACAGACCTGTCTTC 1376  
 QY 448 ValGlyThrLysSerGlyLysLeuLysIleArgVal-----Asp 461  
 DB 1377 CTGGTTCAGAGGCGGAGCGTCTCAAGTTCTCGCCGCGCCCAATGCCAGACACTCA 1436  
 QY 462 GlyProArgGlyAsnAlaLeuGlnIleTyrGlnThrValGlnValAlaPro----- 478  
 DB 1437 GGGAGCTGTGGCTCAAGTGTCTCTGAGGAGTTTGAAGCTTACCGGCGGAGAGCTGT 1486  
 QY 479 -----GlyProValLeuArgAspMetAlaPheSerLysAsp 490  
 DB 1497 GAGCGCCCGCGGCTGGAGAGACAGGCGGCTGCTGAGCTTGAAGCTGAGAGACT 1556  
 QY 491 HisGlnIleLeuTyrIleMetSerGlnArgGlnLeuThrArgValProValGlnSerCys 510  
 DB 1557 TCGGGGAGCTGTGCTGCTGCTTCCCGCTGCGTGTCCAGAGTGCCTGTGCTGC 1616  
 QY 511 GlyIleTyrGlnIleCys---GlyGluCysLeuGlySerGlyAspProHisCysGlyTyr 529  
 DB 1617 CAGCAGTCTCGGGGTGATGAAGAAGCTGTACGCACTAGACACCTTACTGGGGGTGG 1676  
 QY 530 -----CysValLeuHisAsnThrCysThrArg 538  
 DB 1677 GCCCCGAGCGCTCCTGATCTTCTCTCAGCCCGGAGACAG 1718

RESULT 13  
 US-09-077-940A-1  
 ; Sequence 1, Application US/09077940A  
 ; Patent No. 6576441  
 ; GENERAL INFORMATION:  
 ; APPLICANT: KIMURA, Toru et al.  
 ; TITLE OF INVENTION: NOVEL SEMAPHORIN 2 AND GENE ENCODING THE SAME  
 ; FILE REFERENCE: 0020-4426P  
 ; CURRENT APPLICATION NUMBER: US/09/077,940A  
 ; NUMBER OF SEQ ID NOS: 20  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 1

/ LENGTH: 3692  
 / TYPE: DNA  
 / ORGANISM: Rattus norvegicus  
 / FEATURE:  
 / NAME/KEY: 5'UTR  
 / LOCATION: (1)..(18)  
 / OTHER INFORMATION:  
 / NAME/KEY: CDS  
 / LOCATION: (19)..(2682)  
 / OTHER INFORMATION:  
 / NAME/KEY: 3'UTR  
 / LOCATION: (2683)..(3653)  
 / OTHER INFORMATION:  
 / NAME/KEY: polyA\_site  
 / LOCATION: (3654)..(3692)  
 / OTHER INFORMATION:  
 / US-09-077-940A-1

Alignment Scores:  
 Pred. No.: 2,86e-15 Length: 3692  
 Score: 244.50 Matches: 141  
 Percent Similarity: 35.69% Conservative: 86  
 Best Local Similarity: 22.17% Mismatches: 206  
 Query Match: 2.45% Indels: 203  
 DB: Gaps: 34

US-09-964-956-13 (1-1896) x US-09-077-940A-1 (1-3692)

QY 8 TTPHr-----CysLeuLeuSerHisLeuLeuMetValGly 19  
 DB 22 TGACACCCCGAGCGCCCTCCACGCGCGCCCTGCTGTCCTCTGCTGCTGCTGCTG 81  
 QY 20 MetGlySerSerThrLeuLeuThrArgGlnProAlaProLeuSerGlnLysArgSer 39  
 DB 82 AGGCTACCCCATGGCCCTTTTCCAGATACCACTCCACTGAGTGGCTCCCAAGGAG 141  
 QY 40 PheValThrPhe-----ArgGlyLeuProAlaGlu 49  
 DB 142 TACCTGAGCCCACTACCCGCTGTCGTGGGACGCGGCTGCTGCTGACCCCTGCGAG 201  
 QY 50 GlyPheAsnHisLeuValValAsp-----GluArgThrGlyHisIleTyr 64  
 DB 202 GGTGCTGAGACCTTAACATCCAGAGAGTGTCTAGCTGTTAACAGAGCA-----CTGTC 255  
 QY 65 LeuGlyAlaValAsnArgIleTyrIleLeu-----SerSerAspLeu 78  
 DB 256 ATCGGGGACAGAGACACCTGTACCAAGTGAAGTGAAGCCATCCATCCACGAGACTG 315  
 QY 79 LysVal-----LeuValThrHisGluThrGlyProAlaArgGluAsnProLysCysTyr 96  
 DB 316 CGGTATACCGGAACTTACTGGGCTCAACCCCACTGAC----- 357  
 QY 97 ProProArgIleValGlnThrCys-----AsnGluProLeuThrThrAsn 112  
 DB 358 -----ATGAGTGTGTGCGATGAAGGCAAGCAAGAGGTGAGTGGGAGAC 405  
 QY 113 AsnValAsnLysMetLeuLeuIleAspTyrLysGluAsnArgGluIleAlaCysGlySer 132  
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 QY 133 ---LeuTyrGlnGlyIleCysLysLeuLeuArgGluAsnProPheLysLeuGlyGlu 151  
 DB 460 AATGCATTCATCCCATCTGTGTGCAATTAAGATATGAGACACACTGCACTTGGAGAC 519  
 QY 152 -----ProTyrHisLysGluHisTyrLeuSerGlyVal 163  
 DB 520 AACATCAGTGTATGCGCCGCTGCGCTTACGACCCCAAG---CATGCCAATGTGCGCTTC 576  
 QY 164 AsnGlySerGlySerValPheGlyValIleValSer----- 175  
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DB 637 ATCTACCGTAGCCCTTGGGACCG----- 660  
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 DB 661 ---CCACACTCGCACAGATAAG----- 681  
 QY 215 AlaTyrValPheHisAspGluPheValAlaSerMetIleLysIleProSerAspThrPhe 234  
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 QY 235 ThrIleIleProAspPheAspIleTyrTyrValTyrGlyPheSerSerGlyAsnPheVal 254  
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 QY 255 TyrPheLeuThrLeuGlnProGluMetValSerProProGlySerThrThrLysGluGln 274  
 DB 745 TACTTCTTCTTCCGGGAGATGCGCATG-----GAGTTTAACCTATCTGGAAGAAG 792  
 QY 275 ValTyrThrSerLysLeuValArgLeuCysLysGluAspThrAla----- 289  
 DB 793 GTGGTGTGTCCCGTGTGGCCCGGTATGCAAGATGATGTGGCGCGCTCCCAAGCGGTG 852  
 QY 290 -----PheAsnSerTyrValGluValProIleGlyCysGluArgSerGly--- 304  
 DB 853 CTGAGAAAGACAGTGAAGTCTCTCTGAAAGCCCGCTCAACTGCTCCGTGCTGGGAGC 912  
 QY 305 -----ValGluTyrArgLeuGluGlnAlaTyrLeuSerLysAlaGlyAlaValLeu 322  
 DB 913 TCACACTTACTTCAATGATGACTGACAGCTGTG-----ACGGGTGTGCTG--- 957  
 QY 323 GlyArgThrLeuGlyValHisProAspAspAspLeuLeuPheThrValPheSerLysGly 342  
 DB 958 -----AGCCTTGGGGCGCGCTCA-----GGATTCTTGTCTGCTTCTTCA----- 996  
 QY 343 GlnLysArgLysMetLysSerLeuAspGlnSerAlaLeuCysIlePheIleLeuLysGln 362  
 DB 997 -----ACTCTTGAACACAGCATCCCTGCTGACGTGCTGTGCTTGGACATGAACAA 1050  
 QY 363 IleAsnAspArgIleLysGluArgLeuGlnSerCysTyrArgGlyGluGlyThrLeuAsp 382  
 DB 1051 GTGGCTGCTGTGTTGGAAGCGCGC-----TTCCGGAGACAGAAAGTCACTGAG 1098  
 QY 383 LeuAlaThrLeuLysValLysAsp-----IlePro-----CysSerSer 395  
 DB 1099 TCATCTGAGCCCACTGCTGAGACCAAGTACCAAGCCGCGCGGTGCTGTGCA 1158  
 QY 396 AlaLeuLeuThrIleAspAspAsnPheCysGlyLeuAspMetAsnAlaProLeuGlyVal 415  
 DB 1159 GCG-----CCGGTATGACGTACACAGCATCCCAATGCCCTT 1194  
 QY 416 SerAsp-----MetValArgGlyIlePro--- 423  
 DB 1195 CTGACAGAGATTCTCAATTGTAAAGCCCACTGATGAGCAAGCGGTGCCCTTC 1254  
 QY 424 -----ValPheThrGluAspArgAspArgMetThrSerValIle 436  
 DB 1255 CTGGGCACTCGGCTTGATGTGAGAACTGATACGGCAACAGCTGACCCGAGTGGCT 1314  
 QY 437 AlaTyrVal-----TyrLysAsnHisSerLeuAlaPheValGlyThrLysSer 452  
 DB 1315 GTGATGTGGGTGACAGCCCAATGGGCAATCAACAAATAGTCTTCTTGGCTGAGGTT 1374  
 QY 453 GlyLysLeuLysLysIle-----ArgValAspGlyProArgGlyAsn 466  
 DB 1375 GGCAAGTCTCTAAATTCCTTGTGAAGCCCAATGCGCATGTCTCAAGGACCAAGGCGCC 1434  
 QY 467 AlaLeuGlnTyrGluThrValGlnValValAspPro----- 478  
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QY 421 YLleProValPheThrGluAsp-----ArgAspArgMetThrSerVal----- 435  
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 DB 1717 TTCAGCCGACCCCTACCAAGACTACAGTATCTTCTTGGCTGTGAAGTGGCAATGCT 1776  
 QY 455 ulLysLeu----- 458  
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 QY 459 -----ArgValAspGlyProArgGlyAsnAlaLeuGlnTyrGluThrValGlnVala 476  
 DB 1837 GATTGAAGCTTCAACCAATGCAAGATGCAAGTGTGAGATGAGAAAGCAAAAGGTCAT 1896  
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 QY 516 sGlyGlu---CysLeuGlySerGlyAspProHisCysGlyTyrCysValLeuHisAsnTh 535  
 DB 1996 TAAAGAAGTCTGTATTGATGATCTCGTGAACCGTATGTGCTGG---TTAAGCCAGGATC 2052  
 QY 535 rCysThrArg 538  
 DB 2053 CTGTGCTAGA 2062

RESULT 15  
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 ; Sequence 5, Application US/09653274  
 ; Patent No. 6635742  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Boyle, Bryan J  
 ; APPLICANT: Yeung, George Y  
 ; APPLICANT: Arterburn, Matthew C  
 ; APPLICANT: Mize, Nancy K  
 ; APPLICANT: Tang, Y. Tom  
 ; APPLICANT: Liu, Chenghua  
 ; APPLICANT: Drenth, Radoje T  
 ; TITLE OF INVENTION: Methods and Materials Relating to Semaphorin-Like  
 ; FILE REFERENCE: HVS-23  
 ; CURRENT APPLICATION NUMBER: US/09/653,274  
 ; PRIOR FILING DATE: 2000-08-31  
 ; PRIOR APPLICATION NUMBER: 09/491,404  
 ; NUMBER OF SEQ ID NOS: 13  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 5  
 ; LENGTH: 3261  
 ; TYPE: DNA  
 ; ORGANISM: Homo sapiens  
 US-09-653-274-5

## Alignment Scores:

Pred. No.: 1,45e-13 Length: 3261  
 Score: 228.00 Matches: 128  
 Percent Similarity: 37.30% Conservative: 101  
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 Query Match: 2.28% Indels: 162  
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US-09-964-956-13 (1-1896) x US-09-653-274-5 (1-3261)

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 DB 19 TGTGGCTATACATCTGCTGTGATGTTTCCAGTTGAGGGCAGTACAGCTTTCTCGAAGAT 78

QY 30 ProAlaProLeuSer-----GlnLysGlnArgSerPheValThrPheArgGly 45  
 DB 79 GATGAACCCCTTAATACCTGTGCATATACATATTCAAGCAATATCCGTTTATGAGGA 138  
 QY 46 GluProAlaGluGlyPheAsnHisLeuValValAsp-----GluArgThr 60  
 DB 139 CGGCTTCAGGCAATGAATGCGCAGCAGCGTGCAGCTTACAGTGTATGAAATTCGA 198  
 QY 61 GlyHisIleTyrLeuGlnValAlaAsnArgIleTyrLysLeuSerSerAspLeuLysVal 80  
 DB 199 GACACCTTATATGCTGGCAGGAGTCAAGTTTATACAGTA-----AACTTAATGAA 252  
 QY 81 LeuValThrHisGluThrGlyProAsp-----GluAsp 91  
 DB 253 ATGCCCAAAACAGAGTATATACCAACAAAGAAATGCATGGCGATCAAGACAGAGAT 312  
 QY 92 AsnProLysCys---TyrProProArgIleValGlnThrCysAsnGluProLeuThrThr 110  
 DB 313 CGAAGAACTGTGTATGAAAGCAAGTAAAGATGAATGCACAACTTATTC----- 366  
 QY 111 ThrAsnValAsnLysMetLeuLeuIleAspTyrLysGluAsnArgLeuIleAlaCys 130  
 DB 367 -----AAAGTATTGTTCAGAAAGAACAGATGATGTTTGTGT 408  
 QY 131 Gly---SerLeuTyrGlnGlyTyrLecLysLysLeuLeuGluGlnAspLeuPheLysLeu 149  
 DB 409 GGTACCAATGATCATTCATCCATGTGTAGTACTACAGGTTAGTACCTTAGAATATGAT 468  
 QY 150 GlyGluProTyrHisLysLysGluHisTyrLysSerGlyVal----- 163  
 DB 469 GGGAGAGAA-----ATTAGTGGCTTGGCAAGATGCCATTGAT 507  
 QY 164 -----AsnGluSerGlySerValPheGlyValIleValSerTyrSerAsnLeuAsp 181  
 DB 508 GCCAGCAACCAACCAATGTCCTCCTTGTCT-----GATGG 543  
 QY 182 LysLeuPheIleAlaThrAlaValAspGlyLysProGluTyrPheProThrIleSerSer 201  
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 QY 202 ArgLysLeuThrLysAsnSerGlnAlaAspGlyMetPheAlaTyrValPheHisAspGlu 221  
 DB 583 GATGCCGTTATTATGACAGCATGGGTGATGATGCCCTTCGACACATA-----AAA 636  
 QY 222 PheValAlaSerMetIleLysIleProSerAspThrPheThrIleIleProAspPheAsp 241  
 DB 637 TATGATTCCAATGATTAAGACCA----- 663  
 QY 242 IleTyrTyrValTyrGlyPheSerSerGlyAsnPheValTyrPheLeuThrLeuGlnPro 261  
 DB 664 ---CACTTCTTCATGCATAGATATGGAACATATGCTATTCTTCTTCGAGAA--- 717  
 QY 262 GluMetValSerProProGlySerThrThrLysGluGlnValTyrThrSerLysLeuVal 281  
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 QY 306 GluTyrArgLeuLeuGlnAlaIleTyrLeuSerLysAlaGlyAlaValLeuGlyArgThr 325  
 DB 889 CTGCACTGTTATACACATATATACAAATCATATGATCCCACTGTGTGGG----- 942  
 QY 326 LeuGlyValHisProAspAspLeuLeuPheThrValPheSerLysGlyGlnLysArg 345  
 DB 943 -----GTGTTTACACG----- 954  
 QY 346 LysMetLysSerLeuAspGluSerAlaLeuCysIlePhe-----IleLeuLys 361



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OM protein - nucleic search, using frame\_plus\_p2n model

Run on: February 20, 2004, 12:46:42 ; Search time 938 Seconds  
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Egapop 6.0 , Egapext 7.0  
Delop 6.0 , Delext 7.0

Searched: 2308684 seqs, 1750822206 residues

Total number of hits satisfying chosen parameters: 4617368

Minimum DB seq length: 0  
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Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

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-GAPOP=6 -GAPEXT=7 -YGAPOP=10 -YGAEXT=0.5 -DELOP=6 -DELEX=7

Database : Published Applications NA:\*

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Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Query	Score	Match	Length	DB	ID	Description
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1	6765	67.7	6730	14	US-10-175-523-95	Sequence 95, Appl
2	6267.5	62.7	5895	12	US-10-087-684-31	Sequence 31, Appl
3	6267.5	62.7	5895	12	US-10-218-779-31	Sequence 31, Appl
4	2560	25.8	6252	9	US-09-964-824A-113	Sequence 113, App
5	2560	25.8	6252	10	US-09-930-213-254	Sequence 254, App
6	2029	20.3	3666	15	US-10-108-260A-802	Sequence 802, App
7	1372	13.7	2597	14	US-10-245-103-81	Sequence 91, Appl
8	1372	13.7	2597	14	US-10-245-107-81	Sequence 91, Appl
9	1372	13.7	2597	14	US-10-245-143-81	Sequence 91, Appl
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15	1372	13.7	2597	14	US-10-238-283-81	Sequence 91, Appl
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43	1372	13.7	2597	14	US-10-243-425-81	Sequence 91, Appl
44	1372	13.7	2597	14	US-10-243-446-81	Sequence 91, Appl
45	1372	13.7	2597	14	US-10-245-874-81	Sequence 91, Appl

## ALIGNMENTS

RESULT 1  
US-10-175-523-95  
; Sequence 95, Application US/10175523  
; Publication No. US20030096264A1  
; GENERAL INFORMATION:  
; APPLICANT: Brockman, Jeffrey  
; APPLICANT: Evans, David  
; APPLICANT: Hook, Derek  
; APPLICANT: Klimczak, Leszek  
; APPLICANT: Laezy, Pascal  
; APPLICANT: Palfreyman, Michael  
; APPLICANT: Rajan, Prithi  
; TITLE OF INVENTION: MUTLI-PARAMETER HIGH THROUGHPUT SCREENING ASSAYS (MPHATS)  
; FILE REFERENCE: 3235/1J795-US3  
; CURRENT APPLICATION NUMBER: US/10/175,523  
; CURRENT FILING DATE: 2002-06-18  
; PRIOR APPLICATION NUMBER: US 60/299,151  
; PRIOR FILING DATE: 2001-06-18  
; PRIOR APPLICATION NUMBER: US 60/317,828  
; PRIOR FILING DATE: 2001-09-07  
; PRIOR APPLICATION NUMBER: US 60/325,150  
; PRIOR FILING DATE: 2001-09-25  
; PRIOR APPLICATION NUMBER: US 60/333,047  
; PRIOR FILING DATE: 2001-11-14

PRIOR APPLICATION NUMBER: US 60/349,936  
 PRIOR FILING DATE: 2002-01-18  
 PRIOR APPLICATION NUMBER: US 60/361,834  
 PRIOR FILING DATE: 2002-03-04  
 NUMBER OF SEQ ID NOS: 197  
 SOFTWARE: PatentIn version 3.1  
 SEQ ID NO 95  
 LENGTH: 6730  
 TYPE: DNA  
 ORGANISM: Mus musculus  
 FEATURE:  
 NAME/KEY: misc feature  
 LOCATION: (1)..(6730)  
 OTHER INFORMATION: where n may be a or g or c or t/u, unknown, or other  
 US-10-175-523-95

Alignment Scores:  
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 Score: 6765.00 Matches: 1268  
 Percent Similarity: 80.24% Conservative: 239  
 Best Local Similarity: 67.52% Mismatches: 357  
 Query Match: 67.72% Indels: 14  
 Gaps: 8

US-09-964-956-13 (1-1896) x US-10-175-523-95 (1-6730)

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QY      45 GlyGluProAlaGlu--GlyPheAsnHisLeuValValAspGluValGlnGlyHisIle 63
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QY      64 TyrLeuGlyAlaValAsnArgIleTyrIleSerSerSerAspLeuLysValLeuValThr 83
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QY      104 CysAsnGluProLeuThrThrThrAspAsnValAsnLysMetLeuLeuLeuLeuValLys 123
DB      856 TGCAGTGAAGTCTTACCTACCTACCAACATGTCAACAACTGATGACTTACTACTCT 915
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QY      184 PheIleAlaThrAlaValAspGlyLysProGlnTyrPheProThrIleSerSerArgLys 203
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DB      1390 GTGCGCTCTGCAAGAGATGAGCCCAAGTTCACCTCTATGTGTCTGCTGCTTTGGCTGC 1449
QY      301 GluArgSerGlyValGluTyrArgLeuLeuGlnAlaAlaTyrLeuSerValAlaGlyVal 320
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QY      321 ValLeuGlyArgThrLeuGlyValHisProAspAspAspLeuLeuPheThrValPheSer 340
DB      1510 GCTTATGCTCAGGCTTCACATCAGCAGCAGCAAGATGTCTGTGTGACCATCTTTTCC 1569
QY      341 LysGlyGlnLysArgGlyMetLysSerLeuAspGluSerAlaLeuCysAlaPheIleLeu 360
DB      1570 AAGGGGCGAAGACAGTACACACACCCCTATATGACTGTGCTCTGTGCTTCCCATTC 1629
QY      361 LysGlnIleAsnAspArgIleLysGluArgLeuGlnSerCysTyrArgGlyGluGlyThr 380
DB      1630 CGGGCATCACTTGCATCAATCAAGAGCGGTGAGCTCTGCTACACAGAGAGGCAAC 1689
QY      381 LeuAspLeuAlaTyrPheLysValIleAspIleProCysSerSerAlaLeuLeuThrIle 400
DB      1690 TTGAGAGCTCACTGCTGCTGCGAAGATGTGACGTGACACAGGCGCTGTGCCATTC 1749
QY      401 AspAspAsnPheCysGlyLeuAspMetAsnAlaProLeuGlyValSerAspMetValArg 420
DB      1750 GATGATTACTTCTGCGCTGCGCTGCAATCAACAGCTCTGGAGGCTCCACCTCTGGAG 1809
QY      421 GlyIleProValPheThrGluAspArgAspArgMetThrSerValIleAlaTyrValTyr 440
DB      1810 GGACTGACCTGTAATACACACAGCAGGAGCGCTGACCTGTGTGGCTCTCTATGTATTC 1869
QY      441 LysAsnHisSerLeuAlaPheValGlyThrLysSerGlyLysLeuLysIleArgVal 460
DB      1870 AATGCTACAGTGTGTTTGTGTGGGACTAAGATGCGCAAGCTGAAAGATTTGAGACT 1929
QY      461 AspGlyProArgGlyAsnAlaLeuGlnTyrGluThrValGlnValVal--AspProGly 479
DB      1930 GATGTCCTCCCTCCAGTGGGCTCCAGTATGATGATGTCTGTGTTCAAGATGGAGC 1989
QY      480 ProValIleuArgAspMetAlaPheSerLysAspHisGlnGlnLeuTyrIleMetSerGlu 499
DB      1990 CCAATCTCCGGGACATGAGCTCTTCTCCATCAATCACTATCACTATGCTATGCTAG 2049
QY      500 ArgGlnLeuThrArgValProValGluSerCysGlyGlnTyrGlnSerCysGlyGluCys 519
DB      2050 AGCAGGTACACAGAGGCTCCCTGTGATCATGTGAACAGTATCAACTGTGGAGAGTGT 2109
QY      520 LeuGlySerGlyAspProHisCysGlyThrProCysValLeuHisAsnThrCysThrArgLys 539
DB      2110 CTAGCTCCGGGAAATCTCACTGTGCTGTGTGTGCTTGCCTTGCACAAATGTGCTCCGAGA 2169
QY      540 GluArgCysGluArgSerLysGluProArgArgPheAlaSerGluMetLysGlnCysVal 559
DB      2170 GACAAATGCCAAGGGGCTGGGAGCAATATGATTTGCTGCAGATATGACGACGATG 2229
QY      560 ArgLeuThrValHisProAsnAsnIleSerValSerGlnTyrAsnValLeuLeuValLeu 579
DB      2230 AACTTGAAGTACACCCCAAGCATCTCTGTGTGATCAACAGCCGCTGTCTCAGCTG 2289
QY      580 GluThrTyrAsnValProGluLeuSerAlaGlyValAsnCysThrPheGluAspLeuSer 599
DB      2290 GTTGTGAAGATGATCCCAACTCTCTGAGGATATGCTGTGCTTGGAGATCTGACT 2349
QY      600 GluMetAspGlyLeuValValGlyAsnGlnIleGlnCysTyrSerProAlaAlaLysGlu 619
DB      2350 GAGGTGAGAGGACAGATATCTGGAGTGAAGTCACTGCACTGACCTGAGCCAGCCAGGAT 2409
  
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QY 620 ValProArgIleIleThrGluAsnGlyAspHisIleValGlnLeuGlnLeuSer 639  
 Db 2410 GTCCCT---GTCAATCCCTGTGATCAAGATCGTGTGGCTTAGAGCTGCAGCTGAAATCC 2466  
 QY 640 LysGluThrGlyMetThrPheAlaSerThrSerPheValPheTyraEncyServalHis 659  
 Db 2467 AAAGAGACAGGAAGATCTTGTGACAGCAAGAAATTCAGTTCAATCACTCAGAGGCCAC 2526  
 QY 660 AsnSerCysLeuSerCysValGluSerProTyraGlyGlyHisIleThrCysValArgHis 679  
 Db 2527 CAATGTCCTGCTCTGTGTATACAGCGCCCTCCGCTGCCATGTGGTCAAGTACCTTAAC 2586  
 QY 680 ValCysThrHisAspProLysThrCysSerPheGlnGluValArgValLysLeuProGlu 699  
 Db 2587 CTCTGCACACATGACCCCACTACTGTTCTTCCAGGAAGGCAAGATCAATGTTTCAGAG 2646  
 QY 700 AspCysProGlnLeuLeuArgValAspLysIleLeuValProValGluValIleLysPro 719  
 Db 2647 GACTGTCCCAAGCTCGTGCACGAGAGATTCGATCCAGTTGGGGAAGTAAACCA 2706  
 QY 720 IleThrLeuLysAlaLysAsnLeuProGlnProGlnSerGlyIleArgGlyTyraGluCys 729  
 Db 2707 ATCAACCTTAAGGCCCAAACTCCCAAGCCCAAGTCTGGCCAGCGAGCTACAGAGTGT 2766  
 QY 740 IleLeuAsnIleGlnGlySerGluGlnArgValProAlaLeuArgPheAsnSerSer 759  
 Db 2767 GTGCTCAGCATTTCAAGGGGCTGTCACCGGGGTCCCTCCCTGCTTTCACAGTTCCAGT 2826  
 QY 760 ValGlnCysGlnPheAsnThrSerTyraSerTyraGluGlyMetGluIleAsnLeuProVal 779  
 Db 2827 GTGCAAGTCCAAAGCTCTGACAGATGATGATGATGATGATGATGATGATGATGATGATG 2886  
 QY 780 GluLeuThrValIleTPasngIyHisPheAsnIleAspAsnProAlaGlnAsnLysVal 799  
 Db 2887 GACTTGTGTAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2946  
 QY 800 HisLeuTyraLysCysGlyAlaMetArgGlnSerCysGlyLeuCysLeuLysAlaAspPro 819  
 Db 2947 CATCTTCAAGATGTCAGCCAGCGGAGAGCTGTGTCTCTCTCTCAAGCTGACAC 3006  
 QY 820 AspPheAlaCysGlyTyraCysGlnGlyProGlyGlnCysThrLeuArgGlnHisCysPro 839  
 Db 3007 AAGTTCAGATGT 3066  
 QY 840 AlaGlnGlnSerGlnThrPheGlnLeuSerGlyAlaLysSerLysCysThrAsnProArg 859  
 Db 3067 AGCACTTCTAGCCCTGCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 3126  
 QY 860 IleThrGluIleIleProValThrGlyProArgGlnGlyIleThrLysValThrIleArg 879  
 Db 3127 ATCAACAGATTTTACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3186  
 QY 880 GlyGluAsnLeuGlyLeuGluPheArgPheAlaSerHisValLysValAlaGlyVal 899  
 Db 3187 GCGCGAAGCTGGGCTGTGACTTCTCTGAGATGTGTCTCACTGTCAGTGGCGTGGCGAGTG 3246  
 QY 900 GluCysSerProLeuValAspGlyTyraIleProAlaGlnGlnIleValCysGluMetGly 919  
 Db 3247 CCCTTCACACCTATCCAGGGGATATCATCGCTGACAGATCGTCTGTGAGATGGGC 3306  
 QY 920 GluAlaLysProSerGlnHisAlaGlyPheValGluIleCysValAlaValCysArgPro 939  
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 QY 940 GluPheMetAlaArgSerSerGlnLeuTyraPheMetLysIleThrLysSerAspLeu 959  
 Db 3367 GAGTTCATGACCAAGTCCCAAGCAAGATATCTTTTGATCTCTGTGTCTGTCTGTCTGTCT 3426  
 QY 960 LysProSerArgGlyProMetSerGlyIleThrGlnValIleThrGlyIleThrAsnLeu 979  
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 QY 980 AsnAlaGlySerAsnValValIleMetPheGlyLysGlnProCysValPheHisArgArg 999

Db 3487 GGTGCTGGGAGAGAGTGGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3546  
 QY 1000 SerProSerTyraIleValCys---AsnThrThrSerSerAspGluValLeuGluMetLys 1018  
 Db 3547 TCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3606  
 QY 1019 ValSerValGlnValAspArgAlaLysIleHisGlnAspLeuValPheGlnTyraGlu 1038  
 Db 3607 GTCTCGAGATGTGACAGAGCCCGGGTGAATACAGTCTGACATTCAGATGATATAGAT 3666  
 QY 1039 AspProThrIleValArgIleGluProGluTPSerIleValSerGlyAsnThrProIle 1058  
 Db 3667 GACCCACGGGTCCAAAGTATGAGCAAGTGAATATCACTAGTGGGCACACACCTCA 3726  
 QY 1059 AlaValTPGlyThrHisIleuAspLeuIleGlnAsnProGlnIleArgAlaLysHisGly 1078  
 Db 3727 ACCATCAGAGCTTCACTGATGTCTATTCAGAGCCAGGGTCCAGTCAATTAAT 3786  
 QY 1079 GlyLysGluHisIleAsnIleCysGluValLeuAsnAlaThrGluMetThrCysGlnAla 1098  
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 QY 1099 ProAlaLeuAlaLeuGlyProAspHisGlnSerAspLeuThrGluArgProGluGluPhe 1118  
 Db 3847 CCCTCTGACCAAGTACTACCGCCAGGTCTGACACTGTGGAACGGCCAGATGATTT 3906  
 QY 1119 GlyPheIleLeuAspAsnValGlnSerLeuLeuIleAsnLysThrAsnPheThrTyra 1138  
 Db 3907 GGATTTCTCTTAAACATGATCAATCTTACTCACTTAAAGACACCAAGTTCATAC 3966  
 QY 1139 TyrProAsnProValPheGluAlaPheGlyProSerGlyIleLeuGlnLysProGly 1158  
 Db 3967 TACCCCAACCAAGTGTGAATGCTCAACCCCACTGGAATGTGATGATGATGATGATGATGAT 4026  
 QY 1159 ThrProIleIleLeuLysGlyLysAsnLeuIleProValAlaGlyValAsnValLys 1178  
 Db 4027 TCACCATCATCTGAAGGGCAAAATCTGTCTCTGCTCGCTGAGAGG---GCCAAA 4083  
 QY 1179 LeuAsnTyraValLeuValGlyLysProCysThrValIleValSerAspValGln 1198  
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 QY 1199 LeuLeuCysGlnSerProAsnLeuIleGlyArgHisLysValMetAlaArgValGlyGly 1218  
 Db 4144 CTGCTTTGGAACCTCCCACTCAAGGAGGAGCAAGATGATGATGATGATGATGATGATGATGAT 4203  
 QY 1219 MetGluTyraSerProGlyMetValTyraIleAlaProAspSerProLeuSerIleProAla 1238  
 Db 4204 ATGGTGTCTCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 4263  
 QY 1239 IleValSerIleAlaValAlaGlyLysLeuLeuIlePheIleValAlaValLeuIle 1258  
 Db 4264 ATCATAGCATGACAGCTGTGAGAGCTCTCTTTATCATGTATCATCTCTCTCATC 4323  
 QY 1259 AlaTyraLysArgLysSerArgLysSerAspLeuThrLeuLysArgLeuGlnMet 1278  
 Db 4324 GCTTACAGCGCAAGCTAGGAAATGACCTCACTCACTCACTCACTCACTCACTCACTCACTCACT 4383  
 QY 1279 AspAsnLeuGlnSerArgValAlaLeuGluCysLysGluAlaPheAlaGluLeuGlnThr 1298  
 Db 4384 GACACCTGAGTCAAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 4443  
 QY 1299 AspIleHisGluLeuThrSerAspLeuAspGlyAlaGlyIleProPheLeuAspTyraArg 1318  
 Db 4444 GACATCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 4503  
 QY 1319 ThrTyraThrMetArgValLeuPheProGlyIleGluAsnHisProValLeuArgAspLeu 1338  
 Db 4504 ACCTATGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 4563  
 QY 1339 GluValProGlyTyraArgGlnArgValGlyLysGlyLeuLysLeuPheAlaGlnLeu 1358

Db 4564 GAGGTACAGGAGAAATGACAGACAGACGATGAGAGAAAGCCCTGAACTCTTCCGACGCTT 4623  
Qy 1159 I1eAsnAnlyValPheLeuLeuSerPhe11eArgThirLeuGluSerGlnArgSerPhe 1378  
Db 4624 ATCAACAACAAGAGGTTCTTCTGCTACCTTCACTCCGATCACTGAACTACAGCCGACCTTC 4683  
Qy 1379 SerMetArgAspArgG1yAsnValAlaSerLeu11eMetThrValLeuGlnSerLysLeu 1398  
Db 4684 TCCATGCGAGACCGCTGGGAAAGTGGCTCTCTCTCACTGACAGGCTTCCAGGCTCCCTTA 4743  
Qy 1399 G1uYrZAlaThrAspVal11eLeuY11eGlnLeuAlaSerPhe11eAspLysAsnLeuGlu 1418  
Db 4744 GAATATGCGACTGATGCTTCAACAGACGCTCTCTCACTTCACTTGAACAGACCTGGAG 4803  
Qy 1419 SerLysAsnH1sProLysLeuLeuArgArgThirGluSerValAlaGluLysMetLeu 1438  
Db 4804 AACAAAGAACCCAGCCAGCTCTCTCCGACGACACTGCTGTGGCCGAGAAAGATGCTG 4863  
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Db 4864 ACTAAGCTGTTGCTTCTTCTTCAACAAGTTCTCTGAAAGAGTGTGCTGGGAAACCACTC 4923  
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Db 4924 TTCATGCTATACTGTGCAATCAAGACAGACAGATGAGAAAGCCCATTTGACGCTATTACT 4983  
Qy 1479 G1yGluAlaArgTyrlsSerLeuSerGluAspLysLeu11eArgGlnGln11eAspTyrls 1498  
Db 4984 GGTAGGCGCCATACTCCCTGAGTGAAGACAAAGCTCCGCGACGAGATGAGTAAAG 5043  
Qy 1499 ThrLeuValLeuSerCyValSerProAspAsnAlaAsnSerProGluValProValY11s 1518  
Db 5044 ACTCGATCCGAACTGTGTCAACCCGCTGCAATGAAACAGCCAGATGCCAGATGCAAA 5103  
Qy 1519 11eLeuAsnCyAspThr11eThrGlnVal11eGluY11eLeuAspAla11ePheLys 1538  
Db 5104 GTACTAAACTGTGACACCATCACTCAAGTCAAGAGAAAGATCCGATGCGCTATTAAG 5163  
Qy 1539 AsnValProCySerSerH1sArgProLysAla11eAspMetAspLeuGluTyrlsArgGlnGly 1558  
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Qy 1559 SerG1yAlaArgMet11eLeuGlnAspGluAsp11eThrThryl1eGluAsnAspTrp 1578  
Db 5224 CGGATTCGACAGTGGTGTTCAGAGACGAAACATTCACCAAAATGAGGGGTGATGG 5283  
Qy 1579 LysArgLeuAsnThrLeuAlaH1sTyrlsGlnValProAspGluSerValAla11eLeuVal 1598  
Db 5284 AAGCGCTTAACAACCTGATGATCCAGGTGCAACAGATCCGTCGTGGCTGTGGT 5343  
Qy 1599 SerLysGlnValThrAlaTyrlsAsnAlaValAsnSerThrValSerArgThrSerAla 1618  
Db 5344 CTAAGCAGAGCTCTCTCAACAATCCCTCTCTGCGACGACATCTCCGACATTCATT 5403  
Qy 1619 SerLysTyrlsAsnMet11eArgTyrlsThrGluSerProAspSerLeuArgSerArgThr 1638  
Db 5404 AGCGATATGACTCTCTCTCAAGGTACAGAGACCCAGACACCTCCGCTCCCGGCTC 5463  
Qy 1639 ProMet11eThrProAspLeuGluSerG1yValLysMetTrpH1sLeuValLysAsnH1s 1658  
Db 5464 CCAATGATCAACCCAGACTTGGAGAGCGGTGTCAAGGTTTGGCATCTGGTGAAGAAATCAT 5523  
Qy 1659 G1uH1sG1yAspGlnGluG1yAspArgG1ySerLysMetValSerGlu11eTyrlsLeu 1678  
Db 5524 GACCATGTGTGACCAAGAGAGGTGACCGGAGCGCAAAATGTGTCTGAGATTTACTTG 5583  
Qy 1679 ThrArgLeuLeuAlaThryl1eG1yThrLeuGlnLysPheValAspAspLeuPheGlnThr 1698  
Db 5584 ACCGCGCTTTAGCCACCAAGGAGCCTGTGAGAAATTTGGACGACTTGTGGAAGCC 5643  
Qy 1699 11ePheSerThrAlaH1sArgG1ySerLysLeuProLeuAla11eLysTyrlsMetPheAsp 1718  
Db 5644 TTGTTCAAGACTGTGACCGGGGTAGTGTCTCTCCCTTACGCACTCAAGTACATGTTGAT 5703

Qy 1719 PheLeuAspGluGlnAlaAspLysH1sG1y11eH1sAspProH1sValArgH1sThrTrp 1738  
Db 5704 TTCTCGATGACAGAGGACAGACACAGATTCACACACAGATGTGGCGACACCTGG 5763  
Qy 1739 LysSerAsnCyLeuProLeuArgPheThrValAsnMet11eLysAsnProGlnPheVal 1758  
Db 5764 AAGACCACTGCTTCACTTCTGTTCTGGGTGAATGTCATCAAGAACCTCCATTTGTA 5823  
Qy 1759 PheAsp11eH1sLysAsnSer11eThrAspAlaCyLeuSerValValAlaGlnThrPhe 1778  
Db 5824 TTGATCATCCAGAGGACGATCAAGATCTGCTCTGTGGTGAAGCCCAACCTTT 5883  
Qy 1779 MetAspSerCySerThrSerGluH1sArgGluLysAspSerProSerAsnLysLeu 1798  
Db 5884 ATGACTCTCTGTCCATCAACAGACCGACTGAGAGGACCTTCCAAAGACTG 5943  
Qy 1799 LeuTyrlsAlaLysAsp11eProSerTyrlsAsnTrpValGluArgTyrlsSerAsp11e 1818  
Db 5944 CTCTATGCGAAGATATCCCACTTATGAAGATGGTGAAGAAATACTATGACATATT 6003  
Qy 1819 G1yLysMetProAla11eSerAspGlnAspMetAsnAlaTyrlsAlaGlnSerArg 1838  
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Db 6064 CTGATGCTACAGATTCATATGCTGAGCCGCCCTCAACGAGATCTACTATATGTCAGC 6123  
Qy 1859 LysTyrlsSerGluGlu11eLeuG1yProLeuAspH1sAspAspGlnCyG1yLysGlnLys 1878  
Db 6124 AAGTCAAGTGAAGGACTTATCGGGCACTTACAGATGAGTGAACAGGCCGCAAGCAAGA 6183  
Qy 1879 LeuAlaTyrlsLeuGluGlnVal11eThrLeuMetSerLeuAspSerAsnLys 1896  
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RESULT 2  
US-10-087-684-31  
Sequence 31, Application US/10087684  
Publication No. US20040029116A1  
GENERAL INFORMATION:  
APPLICANT: Edinger, Shlomit R.  
APPLICANT: MacDougall, John R.  
APPLICANT: Willet, Isabelle  
APPLICANT: Eliezer, Karen  
APPLICANT: Stone, David J.  
APPLICANT: Grosse, William M.  
APPLICANT: Lepley, Denise M.  
APPLICANT: Rieger, Daniel K.  
APPLICANT: Burgess, Catherine E.  
APPLICANT: Casman, Stacie J.  
APPLICANT: Spytek, Kimberly A.  
APPLICANT: Boldog, Ferenc L.  
APPLICANT: Li, Li  
APPLICANT: Padigaru, Muralidhara  
APPLICANT: Mishra, Vishnu  
APPLICANT: Shenoy, Suresh G.  
APPLICANT: Rastelli, Luca  
APPLICANT: Tchernev, Velizar T.  
APPLICANT: Vernet, Corine A.M.  
APPLICANT: Zernusen, Bryan D.  
APPLICANT: Malyankar, Uriel M.  
APPLICANT: Guo, Xiaojia  
APPLICANT: Miller, Charles E.  
APPLICANT: Gangoli, Esha A.  
TITLE OF INVENTION: PROTEINS AND NUCLEIC ACIDS ENCODING SAME  
FILE REFERENCE: 21402-214 CIP  
CURRENT APPLICATION NUMBER: US/10/087,684  
CURRENT FILING DATE: 2003-03-10  
PRIOR APPLICATION NUMBER: 60/253,834  
PRIOR FILING DATE: 2000-11-29  
PRIOR APPLICATION NUMBER: 60/250,926



	PRIOR FILING DATE: 2000-11-30	
	PRIOR APPLICATION NUMBER: 60/264,180	
	PRIOR FILING DATE: 2001-01-25	
	PRIOR APPLICATION NUMBER: 60/274,194	
	PRIOR FILING DATE: 2001-03-08	
	PRIOR APPLICATION NUMBER: 60/313,656	
	PRIOR FILING DATE: 2001-08-20	
	PRIOR APPLICATION NUMBER: 60/327,456	
	PRIOR FILING DATE: 2001-10-05	
	NUMBER OF SEQ ID NOS: 220	
	SOFTWARE: CuraSeqList version 0.1	
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	ORGANISM: Homo sapiens	
	FEATURE:	
	NAME/KEY: CDS	
	LOCATION: (23)..(5797)	
	US-10-087-684-31	
	Alignment Scores:	
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	Best Local Similarity: 63.69%	Mismatches: 397
	Query Match: 62.74%	Indels: 35
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US-09-964-956-13 (1-1896) x US-10-087-684-31 (1-5895)		
QY	11 LeuLeuSerHiLeuLeuMetValGlyMetGlySerSerThrLeuLeuThrArgInPro	30
Db	119 CTGCTGTGTGCTGTGCTGTGCGCGGCAATGGGGCTGAGGAGCGCTTG-----CC	169
QY	31 AlAProLeuSerGlnGlyGlnArgSerPheValThrPheArgGlyGlnProAlaGlnGly	50
Db	170 AGGGCAGCGCGGGGCTTCACAGCCGCCCTTCGCGACCTTCTCGGCGAGAGAC---TGAGGC	226
QY	51 PheAsnHiLeuValValAspGluArgThrGlyHisIleTyrLeuGlyValValAsnArg	70
Db	227 CTCACCCACCTTACTGTGTGATGATGAGCAGACGAGCGAGGTGTGGGGCGCAGTAACCGC	286
QY	71 ILTYTyrLeuSerSerAspLeuLeuValThrAsiGlnThrGlyProAspGln	90
Db	287 ATCTATAGCTGTCTGGGAACTGACACTGCTCGGGGCCACGTCACGGCGCTGTGGAG	346
QY	91 AspAsnProLysCysTyrProProArgIleValGlnThrCysAsnGluProLeuThr	110
Db	347 GACACGAGAAAGTGCTACCGCGCGCCACGTCGAGTCTTGCCGCCACGCGCTGGCGAGT	406
QY	111 ThrAsnAsnValAsnLysMetLeuLeuIleAspTyrLysGluAsnArgLeuIleAlaCys	130
Db	407 ACTGACAGCTCAACCAAGCTGCTGCTGCTGAGACTATGCGGCTTAACCGCTCTGGCTGT	466
QY	131 GlySerLeuTyrGlnGlyIleCysLysLeuLeuArgLeuGlnAspLeuPheLysGly	150
Db	467 GCGAGCGCCCTCCAGGCGCATCTGCCAGTTCCTGCGCGTGAAGATCTCTCAACTGGGT	526
QY	151 GlnProTyrHisLysLysGlyHisIleTyrLeuSerGlyValAsnGlnSecIysSerValPhe	170
Db	527 GAGCCACACCAACCGCTAAGAGCACTCTGTCACAGGTGACAGAGGACGAGGAGATGGCG	586
QY	171 GlyValIleValSer-----TyrSerAsnLeuAspAspLysLeuPheIleAlaThrAla	188
Db	587 GCGGTGCTCATGTGCGGCGGACCGGCGAGGCGAGGCCAACCTTTGTGGGACACCC	646
QY	189 ValAspGlyLysProGlyTyrPheProThrIleSerSerArgLysLeuThrLysAsnSer	208
Db	647 ATCATGAGCAAGTCCGAGTACTTCCCACTCTCCAGCACTGTCCAGCGCGGTATGAGCCACAG	706
QY	209 GlnAlaAspGlyMetPheAlaTyrAlaPheHisAspGluPheValAlaSerMetCys	228
Db	707 GAGGATGCCGACATGTTCCGCTTGGTGTGTATCCAGATGATGTTGTGTATCAACAGTCAAG	766

QY	229	LeProSerSerphrPhrThrIleLeProAspPhaAspIleuYrYrValYrGlyPhe	248
Db	767	ATCCCTTCGACGACGCTGTCACAGTTCCCGGCTTGACATCTACATGTGTACACTTC	826
QY	249	SeSerGlyAnpHeValYrPheLeuThrLeuGln-----ProGluMetValSerPro	266
Db	827	CGACGACGACGAGTTGTCTACTACTCTCAACCTCCAGCTCAGTACACAGAGCTCGCCT	886
QY	267	ProGlySerThrThrLysGluGlnValYrThrSerLysLeuValArgLeuCyLysGlu	286
Db	887	-----GATGCCCGCCGCGACGACTTCTACGTCCTCAAGATCGTGGCGCTCTGTGAG	940
QY	287	AspThrAlaPheAnpSerYrValGluValProIleGlyCysGluArgSerGlyValGlu	306
Db	941	GACCCCAAAATTCACCTCGTAGTGTGATTCCTCCATTGGCTGACGACGAGGGGTGTGAG	1000
QY	307	TyrArgHeuLeuGlnAlaIleYrLeuSerLysAlaGlyValAlaValLeuGlyArgThrLeu	326
Db	1001	TACGCTGCTGATGACGATGCTTACCTTACGCGCGCGCCGCGTCCCTGGCCACGACTG	1060
QY	327	GlyValHisProAspAspAspLeuLeuPheThrValPheSerLysGlyGlnLysArgLys	346
Db	1061	GGCTGTGCTGACGACGAGCGAGCGTGTTCACGTGTTCCTCCAGGGCCGAAGAACCGC	1120
QY	347	MetLysSerLeuAnpGlySerAlaLeuCyIlePheIleLeuLysGlnIleAnpAspArg	366
Db	1121	GTCAGGCCACCAAAGAGTCAAGCACTGTGCTGTTCACGCTTCAGGGGCATCAAGAGAG	1180
QY	367	IleLysGluArgLeuGlnSerCysYrYrArgGlyGlnGlyThrLeuAspLeuAlaTrpLeu	386
Db	1181	ATTAGAGAGGCGCATCCAGCTCTGCTACCGGTGAGGGCAAGCTTCTCCGCTGCTG	1240
QY	387	LysValLysAspIleProCysSerSerAlaLeuLeuThrIleAspAspAnpPheCysGly	406
Db	1241	CTCAACAAGAGAGCTGGGCTGCATCAACTCCGCCCTGCAGATTCATGACATTCCTGGCGG	1300
QY	407	LeuAspMetAnpAlaProLeuGlyValSerAspMetValArgGlyIleProValPheThr	426
Db	1301	CAGGACTTCAACCGCCCTGGGGGGGACGATCCATTAGAGGGAGCGCCCTGTGTGTG	1360
QY	427	GluAspArgAspArgMetThrSerValIleAlaIleYrValYrLysAsnHisSerLeuAla	446
Db	1361	GACAAAGATGATGGCCTGACCGCGCTGGCTGCTGATGACATATCGGGCCGACACTGTGTA	1420
QY	447	PheValGlyThrLysSerGlyLysLeuLysLysIleArgValAsp-----GlyProArg	464
Db	1421	TTGCGCGGCAAGCGCAAGTGGCCGATCCGCAAAATCTGTGGAGCTCTCAAAACCCGGT	1480
QY	465	GlyAsn---AlaLeuGlnIleGluThrValGlnAlaValAspProGlyProValLeuArg	483
Db	1481	GGCGCGCTGCGCTCGCCTACGAGAGGTGTGTGCGCCAGAGGGGACGCCCATCTCGGA	1540
QY	484	AspMetAlaPheSerLysAspHisGluGlnLeuYrIleMetSerGluArgGlnLeuThr	503
Db	1541	GACCTCGCTCAAGCCCAACACCACTTCAACGCAATGACCGAGAACACAAAGATGACG	1600
QY	504	ArgValProValGluSerCysGlyGlnIleYrGlnSerCysGlyGluCyLeuGlySerGly	523
Db	1601	CGGTGGCTGTGGAGAGCTGTGTGTGAGTACAGTCCCTGTGAGCTGTGTGGGTACAGG	1660
QY	524	AspProHisCysGlyTrpCysValLeuHisAsnThrCysThrArgLysGluArgCysGlu	543
Db	1661	GACCCCACTGTGTGTGTGTCTGTGACACGACATGTCTCTCGCGGGGAGCGCTGTGAG	1720
QY	544	ArgSerLysGluProArgArgPheAlaSerGluMetLysGlnCysValArgLeuThrVal	563
Db	1721	CGAGCAGACGAGCCCAAGCGCTTGTGTCTCGGACACGTCGACGTGTGTGTCACTGCTGTG	1780
QY	564	HisProAsnAnpIleSerValSerGlnIleYrAsnVal---LeuLeuValLeuGlyThrYr	582
Db	1781	CAGCCCGCAATGTGTGTGTGTACACATGTCCAGGTCCAGATTCCTGTCTCGAGCCCTGG	1840

QY	583	AsnVal.ProbluLeuSerAlaGlyValAlaSerThr.PheGluAspLeuSerGluMetAsp	602
Db	1841	AAAGTGGCTTAACCTCTGAGCTGGGGTAACTGGCTCTTCAGAGACTTCACGGAAATTGGAG	1900
QY	603	GlyLeuValValGlyAengInileGInCysTyr.SerProAlaAlaGlyValProArg	622
Db	1901	AGGCTCTGGAGGATGGCCGGATCACTGGCCGCTCACTCCGCCCGAGAGGTGGGCCCC	1960
QY	623	IleIle-----ThrGluSerGlyAspHisHisValValGluLeuGluLeuLeuSerLys	640
Db	1961	ATCAAGCGGGCCAGGGTGAAGGAGACACGGGGTGGTGAACCTTCACTTAAGTCCAAAG	2020
QY	641	GluThrGlyMetThrPheAlaSerThrSerPheValPheTyrAnCysSerValHis---	659
Db	2021	GAGACAGGAAGAAGTTGGCTGCTCTGGAGACTTGCTGCTTTCACAACTGACAGCTCCACAG	2080
QY	660	AsnSerCysLeuSerCysValGluSerProTyrArgCysHisSTP.CysLysTyrAlaGHis	679
Db	2081	TGGAGTGGCCCTGCTCTGTGTCAAGCGGCTCTCTTCCCTCCACACGTGGTCAAAATCCGCCAC	2140
QY	680	ValCysThrHisAspProLysThrCysSerPheGlnGluGlyArgValLysLeuProGlu	699
Db	2141	GTGGGCACACAAACGTGGCTGAGTGGCTCTCTCGAAGGGCCGTGCACAGCTGTGGAG	2200
QY	700	AspCysProGluLeuLeuArgValAspLysIleLeuValProValGluValIleLysPro	719
Db	2201	GACTGCCACAGATCTTCGCTCCCTCCACACGAGATCACTGACGACGAGGAGGTGTAACCC	2260
QY	720	IleThrLeuLysAlaLysAsnLeuProGluProGlnSerGlyGlnArgGlyTyrArgLys	739
Db	2261	ATCAACCTCGGCGGACGGAACTTCCACACGACCAAGTCAAGCCAGCGTGATTTAGATGC	2320
QY	740	IleLeuAsnIleGlnGlySerGluGlnArgValProAlaLeuArgPheAsnSerSerSer	759
Db	2321	CTCTTCCACATCCGGGGAGGCCGCGCGGTGTCAACGCGCTTCACACAGCTCCAGC	2380
QY	760	ValGlnCysGlnAsnThrSerTyrSerTyrGluGlyMetGluIleAsnAsnLeuProVal	779
Db	2381	CTGCAGTGCACGAATCTCTCTGACTCTTCACAGGGGAAACGATGCACGACTGCCAGTG	2440
QY	780	GluLeuThrValValAlaTTPAsnGlyHisPheAsnIleAspAsnProAlaGlnAsnLysVal	799
Db	2441	AACTGTGATGCTGTGTGGAACGGCAACTTGTCACTTGAACAACCAACCAATCAAGACGC	2500
QY	800	HisLeuTyrLysCysGlyAlaMetArgGluSerCysGlyLeuCysLeuLysAlaAspPro	819
Db	2501	CACCTCTCAAAAGTGGCCGGCCCTGTGGCAGAGCTGGCCCTCTCTCAAGCGCCAGCCGC	2560
QY	820	AspPheAlaCysGlyTTPCysGlnGlyProGlyGlnCysThrLeuAspGlnHisCysPro	839
Db	2561	CGCTTCAAGTGGATGGATGGTGGCGGACGAGCGCGCGCTCTCTCTGCAACCACTGGCCT	2620
QY	840	AlaGln---GluSerGlnTTPLeuGluLeuSerGlyAlaLysSerLysCysThrAsnPro	858
Db	2621	GCCGACACACACGTCATCGTGATGCACCGCGTGCACGCAACAGTCGTCGACCAAGACCC	2680
QY	859	ArgIleThrGluIleIleProValThrGlyProArgGlnGlyGlyTyrHisValThrIle	878
Db	2681	AAGATCTTCAAAGTCTCCCGGAGCGGGCCCGAGGAGGGCGGACCGGCTCACTATTC	2740
QY	879	ArgGlyGluAsnLeuGlyLeuGlnPheArgAspIleAlaSerHisValLysValAlaGly	898
Db	2741	ACAGCGGAAGAACTGGCGCTGGATTCGAAGACGCGCTCTGGCGGTCGCGTGGGCAAG	2800
QY	899	ValGluCysSerProLeuValAspLysTyrIleProAlaGlnGlnIleValCysGluMet	918
Db	2801	GTGCTGTGAGGCCCTGTGGAGAGCGAGATCACTGCGAGGACGATGCTGTGAGATTC	2860
QY	919	GlyGluAlaLysProSerGln---HisAlaGlyPheValGlnIleCysValAlaValCys	937
Db	2861	GGGAGACCGCAAGCTCGCTGTGTGCCATAGACGCCCTGTGGAGGTGTGTGTGGGAACTGC	2920
QY	938	ArgProGluPheMetAlaArgSerGlnLeuTyrTyrPheMetThrLeuThrLeuSer	957

Db 2221 TCACCACTACACCGCGCCCTGTACCAACCAAGCGCTTCACTTCGTGACCAACCACTTCTAC 2980  
 QY 958 AspLeuLyProSerLArgLyProMetSerGlyLThrGlnValThrLeuThrLyThr 977  
 Db 2981 CGTGTAGCCCTCCCGTGGCTCTGTCAAGGGAGCACTCGATTCGATTCAGAGGAAG 3040  
 QY 978 AsnLeuAnaIaGlySerSerAnaValValMetPheGlyLysGlnProCysLeuPhe--- 996  
 Db 3041 CACTGAACCAAGGAGTAGTATGTGGCTGTGTGCTGGTGGCGGCTTCCTCTCTCC 3100  
 QY 997 ---HisArgLysSerProSerLyThrIleValCysAsnThrThrSerLysGluValLeu 1015  
 Db 3101 TGTGTCCAGAGGAATCCCGTAGATTCGGTGGCTGACACCCCGGAGCAAGCCCTGGC 3160  
 QY 1016 GluMetLysValSerValGlnValAspArgAlaLysIle---HisGlnAspLeuValPhe 1034  
 Db 3161 AGCGCTCCCATCATCAACATCAACACCGCGGCCAGGTACCAACCTGAGTGAAGTAC 3220  
 QY 1035 GlnTyValGluAspProThrIleValArgIleGluProGluTTPSerIleValSerGly 1054  
 Db 3221 AACTACACCAAGAGCCCACTCACTCGAGATGACACCCAGAGGACATCAACAGCGT 3280  
 QY 1055 AsnThrProIleAlaValTPrgLyThrHisLeuAspLeuIleGlnAspProGlnIleArg 1074  
 Db 3281 GGAACCTCTGACGGTCAACAGGACCAACCTGGCCACTGTCCGTGAACCCCGATCCGG 3340  
 QY 1075 AlAlaShiAgLyGlyLysGluHisIleAsnIleCysGluValLeuAnaIaThrGluMet 1094  
 Db 3341 GCCAAGATAGGAGCATTTGAGAGGAGAAC---TGCTGTGTATGACATGACACCCATG 3397  
 QY 1095 ThrCysGlnAlaProAlaLeuAlaLeuGlyProAspHisGlnSerAspLeuThrGlnArg 1114  
 Db 3398 GTATGCCGCGCCGCTGTGGCCACCTGTGGCCAGCCCAACAGAGCTGGGGAGACGG 3457  
 QY 1115 ProGluGluPheGlyPheIleLeuAspAsnValGlnSerLeuLeuIleAsnLysThr 1134  
 Db 3458 CCGATAGAGCGGGCTTCGTATGACACAGTGCGCTCCCTGCTGTGCTCACTCCAC 3517  
 QY 1135 AsnPheThrLyThrProAsnProValPheGluAlaPheGlyProSerGlyIleLeuGlu 1154  
 Db 3518 TCCTTCCTCACTACCTCGACCCGTACTGGAGCACTCAAGCCCACTGGCTGCTGGAG 3577  
 QY 1155 LeuLysProGlyThrProIleIleLeuLysGlyLysAsnLeuIleProProValAlaGly 1174  
 Db 3578 CTGAAGCCAGACTCCCACTATCTCTAAGGCGCGGAACCTTGGCACCCT---GCACCC 3634  
 QY 1175 GlyAsnValLysLeuAsnTyThrThrValLeuValGlyGluLysProCysThrValThrVal 1194  
 Db 3635 GGCAACTCCGACCTCACTACACCGGTCTCTCCGCTCCACACCTTATACCTCACCGTG 3694  
 QY 1195 SerAspValGlnLeuLeuCysGluSerProAsnLeuIleGlyArgHisLysValMetAla 1214  
 Db 3695 TGGGAGACGCAACTGCTGTGGAGGCGGCCCACTCACTGGGAGCAACAAGTCAACGCTG 3754  
 QY 1215 ArgValGlyGlyMetGluTySerProGlyMetValTyThrIleAlaProAspSerProLeu 1234  
 Db 3755 COTGAGGTGGCTTCGAGTCTCTCCCGAGGACATCGAGGTACTCGGACAGCTCTGCTG 3814  
 QY 1235 SerLeuProAlaIleValSerIleAlaValAlaGlyGlyLeuLeuIleIlePheIleVal 1254  
 Db 3815 ACGCTGCTGCATTTGGGCAATGGCGAGGCGGAGGCTCTCTCTGCTGCTGATCGTG 3874  
 QY 1255 AlaValLeuIleAlaTyTyArgLysSerArgLysSerAspLeuThrLeuLysArgLeu 1274  
 Db 3875 GCTGTGCTCATCGCTCAACCGCAAGTCAAGATGCTGACCCCACTCAACCGCGTGTG 3934  
 QY 1275 GlnMetGlnMetAspAsnLeuGlnSerArgValAlaLeuGluCysLysGlnAlaPheAla 1294  
 Db 3935 CAGCTCCGATGAGCAACCTGAGTCCGCTGGCGCTCGATGCAAGAGACCTTGTGCA 3994  
 QY 1295 GluLeuGlnThrAspIleHisGluLeuThrSerAspLeuAspGlyAlaGlyTleProPhe 1314

Db 3995 GAGCTGACAGACGATCCAGAGCTGACCAATGACCTGACGCTGCCGATCCCTTC 4054  
 QY 1335 LeuAspTyrArgThrThrThreArgValLeuPheProGlyIleGluAspIleProVal 1334  
 Db 4055 CTGTAATCCGACATATGCCATGCGGCTCTTCTTGGGATCGAGACACCTCTGTG 4114  
 QY 1335 LeuAspLeuGluValProGlyTyrArgGlnValGluValGlyLeuValLeu 1354  
 Db 4115 CTCAAGAGATGAGTA-----CAGGCAATGTGAGAACTCCCTACACTG 4162  
 QY 1355 PheIleGlnIleuIleAsnAsnValPheLeuLeuSerPheIleArgThrLeuGlySer 1374  
 Db 4163 TTCGGGAGCTCTGACCAAGACACTTCTGCTGACCTTCACTCCGACCTGAGGCA 4222  
 QY 1375 GlnArgSerPheSerMetArgAspArgGlyAsnValAlaSerLeuIleMetThrValLeu 1394  
 Db 4223 CAGCGGAGCTTCTCCATGCGGACCGCGGAAATGCGCTCGCATGACGCGCTTG 4282  
 QY 1395 GlnSerTyrLeuGlnTyrAlaThrAspValLeuValGlnLeuValAlaSerLeuIleAsp 1414  
 Db 4283 CAGGGGAGATGAAATACCCACAGCGCTGCTCAAGAGCTGCTTCCGACTCTGAG 4342  
 QY 1415 LysAsnLeuGlySerTyrAsnIleProTyrLeuLeuLeuArgArg---ThrGlySerVal 1433  
 Db 4343 AAGAACTGAGAGAGCAAGAACACCCCAAGCTGACTGCGCGGCAACTGACGCGTG 4402  
 QY 1434 AlaGluTyrMetLeuThrAsnTyrPheThrPheLeuLeuTyrTyrPheLeuValGluVal 1453  
 Db 4403 GCAGAGAAATGTCTAATCTGCTTCACTTCTCTTGTATTAATGTTCTTCAAGAGATGC 4462  
 QY 1454 AlaGluProLeuPheSerLeuPheCysAlaIleTyrGlnGlnMetGluValGlyPro 1473  
 Db 4463 GCTGGGAGCCCTGTTCTACTGTTACTGCTGACCTCCCAACAGACACATGAGAGAGCCCC 4522  
 QY 1474 IleAspAlaIleThrGlyAlaValArgTyrSerLeuSerGluAspTyrLeuIleArgGln 1493  
 Db 4523 ATGAGCGCATCAAGGAGGAGGACGCTCTCCCTGAGTGAAGACAAAGCTCTCGGAG 4582  
 QY 1494 GlnIleAspTyrThrThrLeuValLeuSerCysValSerProAspAsnAlaAsnSerPro 1513  
 Db 4583 CAATTTGACTACAAAGACACTGACCTGAACTGTGTGAACCTTGAGATAGAAATGCACCT 4642  
 QY 1514 GluValProValTyrIleLeuAsnTyrAspThrIleThrGlnValGlyGluValLeu 1533  
 Db 4643 GAGGTGCGGTGAAGGGGCTGAGCTGTGACACGCTCACCCAGGCCAAGAGAGCTGCTG 4702  
 QY 1534 AspAlaIlePheLeuAsnValProCysSerIleArgProValAlaAlaAspMetAspLeu 1553  
 Db 4703 GAGGCTGCCCTACAGGCGCTGCTTCTCCAGCGGCCCAAGGCCGGAATGAACTG 4762  
 QY 1554 GluThrArgGlnGlySerGlyAlaArgMetIleLeuGlnAspGluAspIleThrThrTyr 1573  
 Db 4763 GAGTGGGCGCAAGGCCGCGCATGCGCGCATCATCTGCAGAGCAGACGTCACCAAG 4822  
 QY 1574 IleGluAsnAspTyrTyrValArgLeuAsnThrLeuAlaHisTyrGlnValProAspGlySer 1593  
 Db 4823 ATTGACAAACATTTGAAGAGCTGGAACACTGCTCACTACCAAGGTAACAGAGGAGTCC 4882  
 QY 1594 ValValAlaLeuValSerTyrGlnValThrAlaTyrAsnAlaValAsnSerThrVal 1613  
 Db 4883 TCGGTGCACTGTGCGCAAGCAGACGTCGCGCTACAACTCCCACTCTCCACTTC 4942  
 QY 1614 SerArgThrSerAlaSerTyrTyrGluAsnMetIleArgTyrThrGlySerProAspSer 1633  
 Db 4943 ACCAAG---TCCCTCACAGATACGAGAGCATGTGTGCGACGCGCCAGCACCCGACAG 4999  
 QY 1634 LeuArgSerArgThrProMetIleThrProAspLeuGluSerGlyValIlysmetTPHis 1653  
 Db 5000 CTGGGCTGCGCAGCCCATATATACGCCGCACTGAGAGCGGCAACAGACGTCGGCAC 5059  
 QY 1654 LeuValTyrAsnHisGluHisGlyAspGlnTyrGluGlyAspArgGlySerTyrMetVal 1673  
 Db 5060 CTGGTGAAGAACCAAGACCACTGACACGAGGTGAGCGCGGCAAGATGCTC 5119

QY 1674 SerGlnIleTyrLeuThrArgLeuLeuAlaThrTyr---GlyThrLeuGlnTyrPheVal 1692  
 Db 5120 TCGAGATCTACTTGAACAGGCTACTGCGCACCAAGGAGCACTGACAGAGTTTGTG 5179  
 QY 1693 AspAspLeuPheGlnThrIlePheSerThrAlaHisArgGlySerAlaLeuProLeuAla 1712  
 Db 5180 GAGCACTGTTTGAGACCATCTTTCAGACAGGACACCGGGGCTCAGCCCTGCGCTGGCC 5239  
 QY 1713 IleTyrTyrMetPheAspPheLeuAspGlnGlnAlaAspTyrHisGlyIleHisAspPro 1732  
 Db 5240 ATCAAGTACATGTTTCACTTCTCGATGAGCAGCGCGCAACACCAAGATCAACGATGCT 5299  
 QY 1733 HisValArgHisThrTyrPheSerAsnCys---LeuProLeuArgPheThrValAsnMet 1751  
 Db 5300 GAGTGGCCCAACCTCGGAAGACCACTCAGCTGCCCTGCGCTTCTGGGTGAACGTG 5359  
 QY 1752 IleLysAsnProGlnPheValPheAspIleHisLysAsnSerIleThrAspAlaCysLeu 1771  
 Db 5360 ATCAAGAACCCACAGTTTGTGTTCGACATTCACAAAGACATCAACGAGCGCTGCTTG 5419  
 QY 1772 SerValValAlaGlnThrPheMetAspSerCysSerThrSerGlnHisArgLeuGlyTyr 1791  
 Db 5420 TCGGTGTGCGCCAGACCTTCACTGACTCTGCTTCACTTCACTGAGACAAAGCTGGCAAG 5479  
 QY 1792 AspSerProSerAsnLysLeuLeuTyrAlaLysAspIleProSerTyrTyrAsnThrVal 1811  
 Db 5480 GACTCACTCCCAACAGAGCTCTACGCGCAAGACATCCCACTCAACAAAGACTGGGTG 5539  
 QY 1812 Glu---ArgTyrTyrSerAspIleGlyLysMetProAlaIleSerAspGlnAspMetAsn 1830  
 Db 5540 GAGAGAGGTACATGAGACATGCGCCAGATGCGACCATTCAGCCAGACAGACATGAGT 5599  
 QY 1831 AlaTyrLeuAlaGlnGlnSerArgMetHisMetAsnGluPheAsnThrMetSerAlaLeu 1850  
 Db 5600 GCGATCTGCGTGAAGCTCCCGCGTGCACCTGAGCAAGTGAACAGCATGAGCGCTTG 5659  
 QY 1851 SerGlnIlePheSerTyrValGlyTyrSerGlnGlu-----IleLeuGlyProLeu 1868  
 Db 5660 CACGAGATCTAATCTCTCATCAACCAAGTACAGATAGGTGCAAGATCTTGGACGCTG 5719  
 QY 1869 AspHisAspArgGlyGlyGlnLysLeuAlaTyrTyrLeuGlnGlnValIleThr 1888  
 Db 5720 GAGAGCATGAGCAGCGCGCGCGCGCTGCGAGCAAGCTGAGCAGGTGTGTGAC 5779  
 QY 1889 LeuMetSerLeuAspSer 1894  
 Db 5780 ACGATGCGCTCGAGCAGC 5797

# RESULT 3

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 ; Publication No. US20040029222A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Edinger, Shlomit  
 ; APPLICANT: MacDougall, John  
 ; APPLICANT: Miller, Isabelle  
 ; APPLICANT: Ellemann, Karen  
 ; APPLICANT: Stone, David  
 ; APPLICANT: Gerlach, Valerie  
 ; APPLICANT: Grosche, William  
 ; APPLICANT: Alsbrook II, John  
 ; APPLICANT: Lepley, Denise  
 ; APPLICANT: Rieger, Daniel  
 ; APPLICANT: Burgess, Catherine  
 ; APPLICANT: Casman, Stacie  
 ; APPLICANT: Spytek, Kimberly  
 ; APPLICANT: Boldog, Ferenc  
 ; APPLICANT: Li, Li  
 ; APPLICANT: Padigaru, Muralidhara  
 ; APPLICANT: Mishra, Vishnu  
 ; APPLICANT: Patnajan, Meera  
 ; APPLICANT: Shenoy, Suresh



Db	1661	GACCCCCACTGTGGCTGTGTGTCTGTCTGCACAGCATGTGTCTGGCGGGGACCGCTGTGAG	1720
Qy	544	ArgSerTyrGluProArgArgPheAlaSerGluMetIysGlyValArgLeuThrVal	563
Db	1721	CGACGACGACGACCCCGACCGCTTTGCTGGACGACCTGCGACGTGTGTGACGCTACCTGTG	1780
Qy	564	HisProAsnAniIleSerValSerGlnTyrAsnVal--LeuLeuValLeuGluThrTyr	582
Db	1781	CAGCCCCGCAATGTGTCTGTCAACCATGTGCCAGGTCCAGATCTTGTGTCTGACGCTGG	1840
Qy	583	AsnValProGluLeuSerAlaGlyValAsnCyThrPheGluAspLeuSerGluMetAsp	602
Db	1841	AACGTGCTGACCTCTCAGCTGGCGGTCAACTGCTCTTCCGAGGACTTCACAGGAATCTGAG	1900
Qy	603	GlyLeuValValGlyAsnGlnIleGlnCyPheTyrSerProAlaAlaIysGluValProArg	622
Db	1901	AGCGCTCGGAGGATGGCGGATCCATCGCCGCTCACCCCTCCGCGGGAGAGTGGCGCC	1960
Qy	623	IleIleIle-----ThrGluAsnGlyAspHisHisValValGlnLeuGlnLeuLysSerLys	640
Db	1961	ATCAGCGCGGCGCCAGGCTGAGGGAGACACAGGGCGTGGTGAATCTACTTAAGTCCAAAG	2020
Qy	641	GluThrGlyMetThrPheAlaSerThrSerPheValPheTyrAsnCySerValHis--	659
Db	2021	GAGACAGGGAGGAAGATTTGGCTGTGTGACTTCGCTCTTCAACTGCACTGACGAGGTCCACAG	2080
Qy	660	AsnSerCyLeuSerSerCyValGluSerProTyrArgCyHisHisTyrCyLeuTyrArgHis	679
Db	2081	TCGAACTCCTGTCTGTGTGTGTCAAGGCTCTTCCCTCCACTGTGCAGAAATACCGCAC	2140
Qy	680	ValCyStrHisAspProLysThrCySerPheGlnGluIArgValLysLeuProGlu	699
Db	2141	GTGTGCACACCAACGAGTGTGACTGACCGCTTCCGAGGGCCGCTGTCAACGCTGTCTGAG	2200
Qy	700	AspCyProGlnLeuLeuArgValAlaAspHisIleLeuValProValGluValIleLysPro	719
Db	2201	GACTGCCCAACGATCTCTGCTCCACGACGATCTACGTGCCAGTGGAGTGTATTAACC	2260
Qy	720	IleThrLeuLysAlaLysAsnLeuProGlnProGlnSerGlyIleArgGlyTyrGluCys	739
Db	2261	ATCACCTGGCGCGCACGGAACTGCGCACAGCCACAGTCAGGCGACGCGATATAGATGAC	2320
Qy	740	IleLeuAsnIleGlnGlySerGluIleArgValProAlaLeuArgPheAsnSerSerSer	759
Db	2321	CTCTTCCACATCCCGGGCGCCGGCCCGGTGTCAACCGCTTCCGCTTCAACGCTCCAGC	2380
Qy	760	ValGlnCyGlnAsnThrSerTyrSerTyrGluGlyMetGlnIleAsnAsnLeuProVal	779
Db	2381	CTGCAGTGCAGAAATTCCTCGTACTCTTCAGAGGGAGACATGTACAGCACTGCAATG	2440
Qy	780	GluLeuThrValValTyrAsnGlyHisPheAsnIleAspAsnProAlaGlnAsnLysVal	799
Db	2441	AACCTGTCAAGTGTGTGGACGCGCACTTGTCAATTGCACACCCACAGAACATCCAGGCG	2500
Qy	800	HisLeuTyrLysCyGlyAlaMetArgGluSerCyGlyLeuCyLeuLysValAspPro	819
Db	2501	CACCTCTTAAGATGCCCGGCGCTTGGCGCAGAACTCGGGCTCTGCTCTCAAGGCCAGCCG	2560
Qy	820	AspPheAlaCyGlyTyrCyGlnGlnProGlyGlnCyStrLeuArgGlnHisCySerPro	839
Db	2561	CGCTTCGAGTGGAGTGGTGGTGGCGGACCGCGCTGCTCCTGCGCACACCACTGCGCT	2620
Qy	840	AlaGln--GluSerGlnTyrLeuGluLeuSerGlyAlaLysSerLysCyPheThrAspPro	858
Db	2621	GCCGACACACCTGCATCGTGAATGACCGCGCTCACGGCAGCAGTGGCTGCACGACCC	2680
Qy	859	ArgIleThrGlnIleIleProValThrGlyProArgGluGlyGlyThrLysValThrIle	878
Db	2681	AAGATCTCTAAGCTGTCCCGCAGACGGGCGGACGAGGCGGACGCGGCTCACTATC	2740
Qy	879	ArgGlyGluAsnLeuGlyLeuGluPheArgAspIleAlaSerHisValLysValAlaGly	898
Db	2741	ACAGGGAGAACCTGGCGCTGTGCATTCGAAGCGTGGCTGGCGTGGCGCTGTGGCAG	2800

QY	899	ValGluCysSerProLeuValAspGlyTyrIleProAlaGluGlnIleValCysGluMet	918
Db	2801	GTGCTGTGCAGCCCTGTGTGCAGACCGAGTACATAGTGGGAGAGATCGTCTTGAGATC	2860
QY	919	GlyGluAlaIleProSerGln---HisAlaGlyPheValGluIleCysValAlaValCys	937
Db	2861	GGGAGACCCAGCTCCGTGGCGTGGCCATGACGCCCTGTGTGAGGTGTGTGTGGCGGACTCG	2920
QY	938	ArgProGluPheMetAlaArgSerSerGlnLeuTyrTyrPheMetThrIleThrLeuSer	957
Db	2921	TCACCACTACACCCGCCCTGTACACCCACGCCGCTTCACTTGTGAAACCAACCTTCTTAC	2980
QY	958	AspLeuProSerArgGlyProMetSerGlyIleThrGlnValThrIleIleThrglyThr	977
Db	2991	CGTGTGAGCCCTCCCTGGGCGCTCTGTGAGGGGGGACCTGGATTGGCATCGAGGAGAC	3040
QY	978	AsnLeuAlaIleGlySerAsnValValValMetPheGlySerGlnProCysLeuPhe---	996
Db	3041	CACCTGAAACGAGCAATGATGTGGCTGTGTGGCTGTGGCGGCCCTCTCTCTCTTC	3100
QY	997	---HisArgArgSerProSerTyrIleValCysAsnThrThrSerSerAspGluValLeu	1015
Db	3101	TGCTCCAGAGAACTCCCGTGAATCCGGATGCTGACACCCCGCGGACAGCCCTGAC	3160
QY	1016	GluMetCysValSerValGlnValAspArgAlaIleIle---HisGlnAspLeuValPhe	1034
Db	3161	AGCGCTCCACATCATCATCATCATCAACCGCGGCCAGGTCCACCACTGTAGGTGAATAC	3220
QY	1035	GlnTyrValGluAspProThrIleValArgIleGluProGluTyrSerIleValSerGly	1054
Db	3221	AACATCACCGAGACCCCAACATCTGAAGATGACCCCGAGGTGAGACATCAACAGCGGT	3280
QY	1055	AsnThrProIleAlaValTrrGlyThrHisLeuAspLeuIleGlnAsnProGlnIleArg	1074
Db	3281	GGAGCCCTCCGAGGCTCACAGGACCAACCTGCCACTGTGCGTGAACCCCGAATCCGG	3340
QY	1075	AlaIleHisGlyGlyIleGlyLeuHisIleAsnIleCysGluValLeuAsnAlaThrGluMet	1094
Db	3341	GCCAGATGTGAGGCAATTGAGAGGAGAAC---TGCCGTGGTGTACATGACACCAACATG	3397
QY	1095	ThrCysGlnAlaProAlaLeuAlaLeuGlyProAspHisGlnSerAspLeuThrGluArg	1114
Db	3398	GTAATCCCGCCCGCTGTGTGGCCAAACCTGTGCGACGCCACCAAGAGCTGGGGAGACGG	3457
QY	1115	ProGluGluPheGlyPheIleLeuAspAsnValGlnSerLeuLeuIleLeuAsnIleThr	1134
Db	3458	CCGATGAGCGGGGCTTGTATGATGACAGTGGCGTCCCTGTGTGCTCAATCTCAC	3517
QY	1135	AsnPheThrTyrTyrProAsnProValPheGluAlaPheGlyProSerGlyIleLeuGlu	1154
Db	3518	TCCTTCCTCTTACCTGACCCGCTAGCTGAGCCACTCAGCCCACTGGCTGTCTGAG	3577
QY	1155	LeuIleProGlyThrProIleIleLeuIleGlyIleAsnLeuIleProProValAlaGly	1174
Db	3578	CTGAAGCCCACTCCCACTCATCTCTCAAGGGCCGGAACCTTGGCCACCT---GCACCC	3634
QY	1175	GlyAsnValIleLeuAsnTyrThrValLeuValGlyGluIleProCysThrValThrVal	1194
Db	3635	GGCACTCCGACATCACTACACGATGTCTACCTGCTCCACACCTGTATACCTCAACGATG	3694
QY	1195	SerAspValGlnLeuLeuCysGlySerProAsnLeuIleGlyArgHisIleValMetAla	1214
Db	3695	TCCGAGACGCACTGCTGTGAGAGCGGCCCAACTCACTGGGAGCAACAAGTCAACGATG	3754
QY	1215	ArgValGlyGlyMetGluTyrSerProGlyMetValTyrIleAlaProAspSerProLeu	1234
Db	3755	CGTGAAGGTGCTTGAATTTCTCCACAGGACACTGACGAGGTACTCGGAAGCGCTGCTG	3814
QY	1235	SerLeuProAlaIleValSerIleAlaValAlaGlyIleLeuLeuIleIlePheIleVal	1254
Db	3815	ACGCTGCTGCATTTGTGGCATTTGGGAGAGCGGGGATCTCTGCTGCTGTGATCGTGT	3874

1255 AlaValLeuLeuLeuAlaTyrIleValArgIleSerArgGluSerAspLeuThrIleuLeuValArgIleu 1274  
3875 GCTGTGTCTCATCGCTACCAAGCCGCAAGTCAAGAGATGTGATCGCACTCAACCAAGCCGCGT 3934  
1275 GluMetGlnMetAspAsnLeuGluSerArgValAlaLeuGluCysIleValAlaPheAla 1294  
3935 CAGGTCCAGATGACCAACCTCGAGAGTCCGCTGCGCTCGAATGACAGAGAGCTTTGCA 3994  
1295 GluLeuGlnThrAspIleHisGluLeuThrSerAspLeuAspGlyAlaGlyIleProPhe 1314  
3995 GAGCTGACAGACAGATCCACAGCTGACCAATGACCTGACGAGTCCGCGCATCCCTTC 4054  
1315 LeuAspTyrArgTyrThrMetArgValLeuPheProGlyIleGluAspHisProVal 1334  
4055 CTTCATACCGGACATATGCCATCCGCGTCTCTTCTCGGATCGAGACCAACCTGTG 4114  
1335 LeuArgAspLeuGluValProGlyTyrArgGlnGluArgValGluIleGlyLeuValLeu 1354  
4115 CTCAAGAGATGAGGTA-----CAGGCCAATGTGAGAGAGTCTGACACTG 4162  
1355 PheAlaGlnLeuIleAsnAsnValPheLeuLeuSerPheIleArgThrLeuGluSer 1374  
4163 TTCCGAGAGCTGTGACCAAGAGCACTTCTGCTGACCTTCAATCCGACGCTGAGGCA 4222  
1375 GlnArgSerPheSerMetArgAspArgGlyAsnValAlaSerLeuIleMetThrValLeu 1394  
4223 CAGCGCAGCTTCTCCATGCGGACCGCGGGAATGTGCTCGCTCATCAGAGCGGCTG 4282  
1395 GlnSerIleLeuGluTyrAlaThrAspValLeuValLeuGlnLeuValAspLeuIleAsp 1414  
4283 CAGGCGAGATGAGATACGCCACAGGCTGTCTCAAGAGCTGCTTTCGACCTCATGAG 4342  
1415 LysAsnLeuGluSerIleValAsnHisProIleLeuLeuArgArg---ThrGluSerVal 1433  
4343 AAGAAGCTCGAGACCAAGAACCAACCCAGCTGCTACGCGCGCAACTGAGTGGTG 4402  
1434 AlaGluIleMetLeuThrAsnThrPheThrPheLeuLeuTyrIlePheLeuValGluCys 1453  
4403 GCAGAGAGATGATCTAATCTGCTCACTCTCTTGTATGATGCTCCAGAGAGTGC 4462  
1454 AlaGluIleProLeuPheSerIlePheCysAlaIleIleGlnGlnMetGluValGlyPro 1473  
4463 GCTGCGGAGCGCTGCTCATCTCTACTGCGCATCAAGACAGAGATGAGAGCGGCTG 4522  
1474 IleAspAlaIleThrGlyGluAlaArgTyrSerLeuSerGluIleValIleArgGln 1493  
4523 ATTGACCGCATCAGCGGTGAGGACGCTACTCCTGAGTGAAGACAGCTCATCCGCGAG 4582  
1494 GlnIleAspTyrIleValThrLeuValLeuSerCysValSerProAspAsnAlaAsnSerPro 1513  
4583 CAGATTGACTACCAAGACCTGACCTGATCTGTGATGACCTTGAGATGAGATGACCT 4642  
1514 GluValProValIleLeuAsnCysAspThrIleThrGlnValIleGlyIleLeu 1533  
4643 GAGGTGCGGTGAGAGGCGCTGACTGTGACAGCTGACCAAGCGCAAGAGAGCTGCTG 4702  
1534 AspAlaIlePheIleValAsnValProCysSerHisArgProIleValAlaAspMetAspLeu 1553  
4703 GACCTGCTCTCAAGGCGTGTCTTACTCCAGCGGCCCAAGCGCGCGCATGAGACTG 4762  
1554 GluTyrArgGlnIleSerGlyAlaArgMetIleLeuGlnAspGluAspIleThrThrLys 1573  
4763 GAGTGGCGCCAGCGCGCATGCGCGCTACTCTGACGACGAGCGAGCGATCCACCAAG 4822  
1574 IleGluAsnAspTyrIleValArgLeuAsnThrLeuAlaHisTyrGlnValProAspGlySer 1593  
4823 ATTGACACGATTGAGAGAGCTGACACCTGCTCATCCAGGTGACAGAGCGGTCC 4882  
1594 ValValAlaLeuValSerIleGlnValThrAlaTyrAsnAlaValAsnAsnSerThrVal 1613  
4883 TCGGTGGCACTGTGCGCCAGACAGCGCGCTACCAACCTCCCACTCTCCACCTTC 4942  
1614 SerArgThrSerAlaSerIleValGluAsnMetIleArgTyrThrGlySerProAspSer 1633

4943 ACCAAG---TCCCTCAGAGATACGAGAGCATGTGTGCGACGGCGACAGGCCGACAGC 4999  
1634 LeuArgSerArgThrProMetIleThrProAspLeuGluSerGlyValIleMetThrHis 1653  
5000 CTGCGCTCGCCAGCGCCCATGATCAAGCCGACCTGGAGACCGGACCAACCACTGTGAC 5059  
1654 LeuValIleAsnHisGluHisGlyAspGlnIleGluIleAspArgIleSerIleMetVal 1673  
5060 CTGCTGAAGAACCAACAGACCACTGACCAAGGCTGAGTGAAGTGAAGTGAAGTGAAGTGA 5119  
1674 SerGluIleTyrLeuThrArgLeuLeuAlaThrLys---GlyThrLeuGlnIlePheVal 1693  
5120 TCGAGATCTTACTGACAGGCTACTGCGCCACCAAGAGGCGACACTGCAAGATTTGTG 5179  
1693 AspAspLeuPheGluThrIlePheSerThrAlaHisArgIleSerAlaLeuProLeuAla 1712  
5180 GACGACCTGTTGAGACCATTTGACAGCGGACACCGGGCTGACCTGCGCTGCGC 5239  
1713 IleTyrIleMetPheAspPheLeuAspGluGlnAlaAspIleHisGlyIleHisAspPro 1732  
5240 ATCAAGTACATGTTGCACTTCTGATGACAGGCGCCGACAGACCAAGATCCAGATGCT 5299  
1733 HisValArgHisThrThrIlePheSerAsnCys---LeuProLeuArgPheThrValAsnMet 1751  
5300 GACGTGCGCCACACTGGAAGAGCACTGACGCTGCGCTGCGCTTGTGCTGATGACGTG 5359  
1752 IleTyrAsnProGlnPheValPheAspIleHisLysAsnSerIleThrAspAlaCysLeu 1771  
5360 ATCAAGAACCCAGATTTGTGTGATGACATTCACAGAACACAGATCAAGAGCTGCTG 5419  
1772 SerValValAlaGlnThrPheMetAspSerCysSerThrSerGlnHisArgLeuGlyLys 1791  
5420 TCGGTGTGCGCCAGACCTTATGATGATCTGCTTCCACTGAGACACAGCTGAGCAG 5479  
1792 AspSerProSerAsnIleLeuLeuTyrAlaLysAspIleProSerTyrLysAsnThrVal 1811  
5480 GACTACCTCCACAGACACTCTCTACGCCAAGACATCCCACTACAGAGCTGGGTG 5539  
1812 Glu---ArgTyrTyrSerAspIleGlyIleMetProAlaIleSerAspGlnAspMetAsn 1830  
5540 GAGAGAGGTACTATGAGACATCGCCAGATGCGACGACATCAGAGACAGAGACAGTGTG 5599  
1831 AlaTyrLeuAlaGlnIleSerArgMetHisMetAsnGluPheAsnThrMetSerAlaLeu 1850  
5600 GGTATCTGGCTGAGACATCCGCTGACCTGACCGCAGTTCACAGACATGAGCGCTTG 5659  
1851 SerGluIlePheSerTyrValGlyIleTyrSerGluGlu-----IleLeuGlyProLeu 1868  
5660 CACGAGATCTACTCTTACATCAACCAAGTACAGAGTGAAGTGAAGTGAAGTGAAGTGA 5719  
1869 AspHisAspAspGlnCysGlyIleGlnIleLeuAlaTyrIleLeuGlnIleValIleThr 1888  
5720 GAGAGAGTGAAGAGCGCGCGCGAGCGCTCGGACCAAGCTGAGACAGTGTGTGAC 5779  
1889 LeuMetSerLeuAspSer 1894  
5780 ACGATGCGCTGAGCAGC 5797

RESULT 4  
US-09-964-824A-313  
Sequence 313, Application US/09964824A  
Patent No. US20020102531A1  
GENERAL INFORMATION:  
APPLICANT: Horigan, Stephen  
TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using Signal  
FILE REFERENCE: 689290-73  
CURRENT APPLICATION NUMBER: US/09/964,824A  
CURRENT FILING DATE: 2001-09-27  
PRIOR APPLICATION NUMBER: US/60/236,033  
PRIOR FILING DATE: 2000-09-28  
PRIOR APPLICATION NUMBER: US/60/236,032



PRIOR FILING DATE: 2000-09-28  
PRIOR APPLICATION NUMBER: US/60/236,028  
PRIOR FILING DATE: 2000-09-28  
NUMBER OF SEQ ID NOS: 583  
SOFTWARE: Patent version 3.0  
SEQ ID NO 313  
LENGTH: 6252  
TYPE: DNA  
ORGANISM: Homo sapiens  
US-09-964-824A-313

Alignment Scores:  
Pred. No.: 2,666-268 Length: 6252  
Score: 2580.00 Matches: 654  
Percent Similarity: 50.63% Conservative: 344  
Best Local Similarity: 33.18% Mismatches: 713  
Query Match: 25.83% Indels: 260  
DB: Gaps: 61

US-09-964-956-13 (1-1896) x US-09-964-824A-313 (1-6252)

QY 24 ThrLeuLeuThrArgGlnProAlaProLeuSerGlnArgSerPheValThrPhe 43  
|||  
DB 35 ACCCTGCTGGCTGCTGGCGCAGGTGCGACCTGAGGCCCGGACGCTGACTTCTTC 94  
|||  
QY 44 ArgGlyGluProAlaGluGlyPheAsnHisLeuValAlaSerGluArgThrGlyHisLe 63  
|||  
DB 95 CCGACCGAG-----AAAGAGCTGAACCACTGGCTGTGATGAGGCTTCAAGGCTGTGTG 148  
|||  
QY 64 TyrLeuGlyAlaValAsnArgGlyLeuTyrLeuSerSerAspLeuValLeuValThr 83  
|||  
DB 149 TACCTGTGGGCGCGTGAATCCCTTACCACTGATGCGAAGCTGACAGCTGACAGCAG 208  
|||  
QY 84 HisGluThrGlyProAspGluAspAsnProGlyCysTyrProProArgLeuValGlnThr 103  
|||  
DB 209 GTGGCCACGCGCGCCGCTGAGCAACAGAGAGTCAACCCGCTGAGGCGCAGCCAG 268  
|||  
QY 104 CysAsnGluProLeuThrThrThrAsnValAsnValMetLeuLeuLeuAspTyrHis 123  
|||  
DB 269 TGGCATGAG-----GCTGAGATGACTGACATGTCACACAGCTGCTGCTGACCCCTCC 325  
|||  
QY 124 GluAsnArgLeuLeuLeuLeuCysGlySerLeuTyrGlnGlyTyrCysTyrLeuLeuArgLeu 143  
|||  
DB 326 AGGAAGCGCTGCTGATGAGTGGCGAGCCCTTCAAGGCGATCTGGGCTTGGCGCCCTG 385  
|||  
QY 144 GluAsp-----LeuPheLeuLeuGlyGluProTyrHisLeuLeuGlnHisTyrLeuSer 161  
|||  
DB 386 AGCAATATCTCCCTCCGCTGTTTTCAGAGACGGCAGCGGAGAGAGCTTTCTGCGCC 445  
|||  
QY 162 GlyValAsnGluSerGlySerValPheGlyValAlaLeuSerTyrSerAsnLeuAspAsp 181  
|||  
DB 446 AGCAATGATGAGGCGCTGCGCAGAGTGGGCTGTGAGCTCCACGCGGTCTGTGTGATC 505  
|||  
QY 182 LysLeuPheLeuLeuLeuLeuValAlaSerGlyLysProGluTyrPheProThrLeuSer 201  
|||  
DB 506 CCGGTCTGTTGTGGGCAAGGCAATGGCCCAACAGCAAGGCTATCTGTGGACAT 565  
|||  
QY 202 ArgGlyLeuThrLysAsnSerGlyAlaAspGlyMetPheAlaTyrValPheHisAspGlu 221  
|||  
DB 566 CCGCTGTGGACCGGACGACTGACAGCAGGAGGCTTTGAAGCTTACACGAGCAGCCAGC 625  
|||  
QY 222 PheValAlaSerMetLeuLysIleProSerAspThrPheThrIleLeuProAspPheAsp 241  
|||  
DB 626 TACAAAGCCGCTACTGCTCCACCAACACACAGCAGCTTC----- 664  
|||  
QY 242 IleTyrTyrValTyrGlyPheSerSerGlyAsnPheValTyrPheLeuThrLeuGlnPro 261  
|||  
DB 665 -----GTGGCGGCTTCGAGAGAGCGCCCTAGCTCTCTTGTCTTCAACAGCAG 715  
|||  
QY 262 GluMetValSerProProGlySerThrThrLysGluGlnValTyrHisLeuVal 281  
|||  
DB 716 GACAAAG-----CACCGCGCGCCGAAACCGCAG-----CTGCTGGCA 751  
|||

QY 282 ArgLeuCysLysGluAspThrAlaPheAsnSerTyrValGluValProIleGlyCysGlu 301  
|||  
DB 752 CGCATGTGCAAGAAAGACCCCACTACTCTACTGAGATGAGTGGACCTGAGTCCCG 811  
|||  
QY 302 ArgSerGlyValGluTyrArgLeuGlnAlaAlaTyrLeuSerLysAlaGlyAlaVal 321  
|||  
DB 812 GACCCCGACATCCAC-----GCCGTGCTTT-----GCCACCTCC 847  
|||  
QY 322 LeuGlyArgThrLeuGlyValHisProAspAspAspLeuLeuPheThrValPheSerLys 341  
|||  
DB 848 CTGGCGCCCTCCGTGCTGGCTGTGCGAGGCTGATATGCTCTTCTTACAGACA 907  
|||  
QY 342 GlyGlnLysArgLysMetLysSerLeuAspGluSerAlaLeuCysThrLeuPheLeuLys 361  
|||  
DB 908 GACAGC-----CGAGCACTGGGAGGCGCGGCTGCGGCTTCTGCTTCCGCTGAG 961  
|||  
QY 362 GlnIleAsnAspArgIleLysGluArgLeuGlnSerCysTyrArgGlyGlyThrLeu 381  
|||  
DB 962 AAGGTGACGCCAAGATGAGAGGCCAACCGCAAGCTGTAC-----ACAGGACCCCG 1015  
|||  
QY 382 AspLeuAlaThrLeuLysValLys-----AspIleProCysSerSerAlaLeu 397  
|||  
DB 1016 GAGGCGCGTACATCTTTCACAGCCCTTCCACGCGATATCCAGTGGCGGCCAGCG 1075  
|||  
QY 398 LeuThrIleAspAspAspPhe-----CysGlyLeuAsp-----MetAsnAlaProLeuGlyVal 415  
|||  
DB 1076 CCGGCTCCAGCAAGAGCTTCCCATGTGCTGAGACACTGCGCTTACCGGCTGAGC 1135  
|||  
QY 416 SerAspMetValArgGlyLeuProValPheThrGluAspArgAspMetThrSerVal 435  
|||  
DB 1136 CCGGACCGGCTCAGAGCAGCGGCTGACCGCTGAGAGGCTGAACTCAGCGCGCTG 1195  
|||  
QY 436 IleAlaTyrValTyrLysAsnHisSerLeuAlaPheValGlyThrLysSerGlyLysLeu 455  
|||  
DB 1196 ACGGTGCGCCCGAGAAACACACACATGTTCTTTCTGGGACCTGTATGGCCGATC 1255  
|||  
QY 456 LysLysIleArgValAspGlyProArgGlyAsnAlaLeuGlnTyrGluThrValGlnVal 475  
|||  
DB 1256 CTCAGGTGTACTACCC-----CCAGATGGCAGCTCTCAGAGATGACCTATCTCTGTG 1312  
|||  
QY 476 ValAspProGlyProValLeuArgAspMetAlaPheSerLysAspHisGluGlnLeuTyr 495  
|||  
DB 1313 GAGATTAACAAAGAGTCAAGCCGACCTGTACTGTGTGAACCTGGCAGACCTGTAC 1372  
|||  
QY 496 IleMetSerGluArgGlnLeuThrArgValProValGlnSerCysGlyGlnTyrGlnSer 515  
|||  
DB 1373 GCGATGACCCAGAGCAAGAGTTCGCGCTGCCGTGAGAGAGTGCCTGACCTACCCGACC 1432  
|||  
QY 516 CysGlyGluCysLeuGlySerGlyLysProHisCysGlyThrCysValLeuHisAsnThr 535  
|||  
DB 1433 TGCACCCAGTCCGCGACTCCAGACCTCTACTGCGCTGTGTGCTGTGAGGAGCA 1492  
|||  
QY 536 CysThrArgLysGluArgCysGluArgSerLysGluProArgArgPheAla-----SerGlu 554  
|||  
DB 1493 TGCACCCGAAAGGCGAGTGTCCGCGGCGGAGGAGGAGGAGGAGGAGGAGGAG 1552  
|||  
QY 555 MetLysGlnCysValAlaGluLeuThr-----ValHisProAsnHisLeuSer-----ValSerGln 572  
|||  
DB 1553 AGCAAGTCTGCGTGGCGCTGACAGCGCCAGCAGCAAGCAAGTGAACCGGCGGCGCAG 1612  
|||  
QY 573 TyrAsnValLeuLeuValLeuGluThrTyrAsnValProGluLeuSerAla-----Gly 590  
|||  
DB 1613 GGGAGGTGAGCTGACGCTGACGCTGAGCC-----CTCCTGCGCTGAGCAGGAGAGAG 1666  
|||  
QY 591 ValAsnCysThrPheGluAspLeuSerGluMetAspGlyLeuValAlaGlyAsnGlnIle 610  
|||  
DB 1667 TTGCTGTGCTTTTGGGAGTGGCGCCAGCAGCCCGCGTGGAGGGGAGCGCGCTG 1726  
|||  
QY 611 GlnCysTyrSerProAlaAlaLysGluValProArgIleLeuThrGluAsnGly-----Asp 629  
|||  
DB 1727 ATCTGCAACTCCCAAGACG-----ATCCCG-----GTCAACCGCCAGGCGCAGGAC 1774  
|||  
QY 630 HisHisValValGlnLeuGlnLeuLysSerLysGluThrGlyMetThrPheAlaSerThr 649  
|||





Oy	128	LeuGluCysArgSerGluAlaPheAlaLeuGlnGlnThraAspIleHisGluLeuThrSerAsp	1306
Db	3749	GACCGCTGCAGAAAGAAATTCACAGACCTTATGATCGAGATGGAGAGACCAAGCAACGAC	3808
Oy	1307	LeuAspGluValaGlyIleProPheLeuAspTyrArgThrTyrThrMetArgValLeuPhe	1326
Db	3809	GTGCACAGAGCGCGGCATCCCGTGGCTGGACTGATCAAGACCTTACACCGCGCTTCTTC	3868
Oy	1327	-----ProGlyIleGluAspHisPheValLeuArgAspLeuGluValProGly	1342
Db	3869	CTGCCTCCCAAGACGCGACAGAGAGTATGATACCGGCAAGCTGGACATCCCTGGAG	3928
Oy	1343	TyrArgGlnGluArgValGluValSerGlyLeuValLeuPheAlaGlnLeuIleAsnValLys	1362
Db	3929	CCGGGGGGCGCGGTGGAGAGCAGGCGCTTACCAAGTTCACACTGCTGAAACAGAGAG	3988
Oy	1363	ValPheLeuLeuSerPheIleArgThrLeuGlnGlnArgSerPheSerMetArgAsp	1382
Db	3989	TCTTCTCATCAATTCATTCATCCACACCTGGAGAACGAGGGAGTCTCGCGCCGGCC	4048
Oy	1383	ArgGluAsnValAlaSerLeuIleMetThrValLeuGlnSerLysLeuGluTyrAlaThr	1402
Db	4049	AAGGTCTACTTGGGTCCCTGGCTGACCGGTGGCGCTGCACGGAGAACTGGAGTCAACG	4108
Oy	1403	AspValLeuLysGlnLeuLeuAlaAspLeuIleAspLysAsnLeuGlnSerLysAsnHis	1422
Db	4109	GACATCTGACACAGCTTCTTCTCGAGCTCTCGAGACGATGACGAGCGCCCAAGAAC--	4165
Oy	1423	ProLysLeuLeuLeuAlaGArgThrGlnSerAlaAlaGluLysMetLeuThrAsnProPhe	1442
Db	4166	CCCAAGCTGAGCTGGCGAGGTCTGAGACTGTGGTGGAGAGAGAGTCTCCACTGGATG	4225
Oy	1443	ThrPheLeuLeuTyrLysPheLeuLysGlnLysCysAlaGlyGluProLeuPheSerLeuPhe	1462
Db	4226	TCCATCTGCTGTGACAGTACTCTCAAGACAGTCCGGGGAGCCCTGTACAGCTCTTC	4285
Oy	1463	CysAlaIleLysGlnGlnMetGlnLysGlyProIleAspAlaIleThrGluAlaArg	1482
Db	4286	AAGGCATCAACATCATGATGATGAAAGAGGCGCGGTGATGCGGTACAGAAAGCCAG	4345
Oy	1483	TyrSerLeuSerGluAspLysLeuIleArgGlnGlnIleAspTyrLysThrLeuValLeu	1502
Db	4346	TACACTCTCAACGACACGCGGCTGTGGGGGATGATGGAGTACGACACCCCTGACGGTG	4405
Oy	1503	SerCysValSerProAspAsnAlaAsnSerProGluValProValLysIleLeuAsnCys	1522
Db	4406	AGCGTATCTGCGACAGACGAG--GAGTGGACGCCATCCCGGTGAGGTCTCTCAATGT	4462
Oy	1523	AspThrIleThrGlnValLysGlnLysIleLeuAspAlaIlePheLysAsnValProCys	1542
Db	4463	GACACCATCTCCACAGTCAGAGAGAAAGTCAATTGCCAGGGTACCGGTGGGCAACCTGC	4522
Oy	1543	SerHisArgProLysAlaAlaAspMetAspLeuGlnTyrPARGlnGlnLysSerGluAlaArg	1562
Db	4522	TCTCTGCTGCGCAGGCCACACAGCTGTCCTGAGTGGCGTCCGGGCTCCACAGCGGAG	4582
Oy	1563	MetIleLeuGlnAspGluAspIleThrThrLysIleGluAsnAspTyrLysArgLeuAsn	1582
Db	4583	---ATCCTGTGCGAGCTGGACTGTGCTGCACGCGGAGGGCGGTGGAAACCGGTCAAC	4639
Oy	1583	ThrLeuAlaHisTyrGlnValProAspGlySerValAlaAlaLeuValSerLysGlnVal	1602
Db	4640	ACCCTTAGCACTTACATGATCCGGATGGAGCAACCTTCATCTG-----	4684
Oy	1603	ThrAlaTyrAsnAlaValaAsnSerThrValSerArgThrSerAlaSerLysTyrGlu	1622
Db	4685	-----TCCAAAGTGGGGGTCTCCACGACGCCGAGAGACGACCGACGAC	4726
Oy	1623	AsnMetIleArgTyrThrGlySerProAspSerLeuArgSerArgThrProMetIleThr	1642
Db	4727	GACCTG-----CCTGGGGAGGCCCATCGCTC-----	4753

```

1643 ProkshpengluseerGlValaLysMetTPIHIsheValLysAenHIsGLuHIsGLYAsp 1662
Db 4754 -----CTGAGGAGGAGGAACCGGGGTGTGGCACTGGTGGCGGCAACGAGGTGGAC 4807
QY 1663 GlnLysGLuGLYAspArgLysSer-----LysMetValSerGlu 1675
Db 4808 GAGGGCAAGTCCAGAGAGGAGCGGTGMAAGAGAGAGGAGCGGAGGAAGGGCCATACCGAG 4867
QY 1676 IleYrLeuThrArgLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeuLeu 1695
Db 4868 ATCTACCTGACCGCGCTGCTCTCAGTCAAGGSCACATGACGACAGCTTGTGGACAACCTTC 4927
QY 1696 PheGluThrIlePheSerThrAlaHIsArgGLYSerAlaLeuProLeuAlaIleLeuTyr 1715
Db 4928 TTCGAGAGCGGCGCGGCGCGTGGAC-----GCGGCGCACTGCACTCAAGTAC 4978
QY 1716 MetPheAspPheLeuAspGLuGLuAlaAspLysHIsGLYIleHIsAspProHIsValArg 1735
Db 4979 TCTTTCGACTCTCTCGAGAGAGCAGCAGCAGAGAGAGCAACATCCAGATGAGACACATC 5038
QY 1736 HIsThrTrpLysSerAsnAsnLysLeuProLeuAlaArgPheTrpValaIleMetIleLysAspPro 1755
Db 5039 CACATCTCGAAGAGCAACAGCTTACCGCTCGGTCTGGGTGAACATCTTCAAGAACCC 5098
QY 1756 GlnPheValPheAspIleHIsLysAsnSerIleThrAspAlaCysLysSerValValaIle 1775
Db 5099 CACTTCATCTTTGACGTGACATGTCACAGAGGTGGAGCGCTCGCTCATGTCATCCG 5158
QY 1776 GlnThrPheMetAspSerCysSerThrSerGluHIsArgLeuGLYLysAspSerProSer 1795
Db 5159 CAGACCTTCAGATGATGCTCTGACCGCAGCGCAGAGCATTAAGCTGAGCGGCAATTCCTCCAC 5218
QY 1796 AsnLysLeuLeuYrAlaAlaLysAspIleProSerTyrLysAsnTrpValaIleArgTyr 1815
Db 5219 AACAGCTGCTGTAGCGCAAGAGATCTCCACCTACAAAGAGATGTGAGAGATTACTAC 5278
QY 1816 SerAspIleGLYLysMetProAlaIleSerAspGlnAspMetAlaAlaTyrLeuAlaGlu 1835
Db 5279 AAGGGAGATCCGAGAGATGTGCAGGTGACGACAGCAGCAGCATGAAACACACACTGGCAAG 5338
QY 1836 GlnSerArgMetHIsMetAsnGluPheAsnThrMetSerAlaLeuSerGluIlePheSer 1855
Db 5339 ATTTCGCGGGGAGCAGCAGCATCTCTGAACACCCCTCGGACATCCACACAGTCTAACCA 5396
QY 1856 TyrValaGlyLeuYrSerGluGluIleLeuGLYProLeuAspHIsAspAspGlnCysGly 1875
Db 5399 TACACGAGAAAGTACTATGACAGAGTCACTCAATGCTTGAGAGAGATCTCGCCGCCAG 5458
QY 1876 LysGlnLysLeuAlaTyrLysLeuGluGlnVal 1886
Db 5459 AAGATGACAGCTGCGCTTCGCGCTGACAGAGATT 5491

RESULT 5
US-09-930-213-254
/ Sequence 254, Application US/09930213
/ Publication No. US20030170625A1
/ GENERAL INFORMATION:
/ APPLICANT: ROSENTHAL, ANDRE
/ APPLICANT: HINZMANN, BERND
/ APPLICANT: SCHAFER, REINHARD
/ APPLICANT: ZUBER, JOHANNES
/ APPLICANT: TCHENITSE, OLEG
/ APPLICANT: GRIPS, MARTIN
/ APPLICANT: HELNIEGEL, MARTIN
/ APPLICANT: SCHMITZ, ANNE-CHANTAL
/ APPLICANT: SERS, CHRISTINE
/ TITLE OF INVENTION: DETECTION OF DIFFERENTIAL GENE EXPRESSIONS
/ FILE REFERENCE: ALBRE-14
/ CURRENT APPLICATION NUMBER: US/09/930,213
/ PRIOR FILING DATE: 2001-01-31
/ PRIOR FILING DATE: 2000-01-31
/ NUMBER OF SEQ ID NOS: 885

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SOFTWARE: PatentIn Ver. 2.1  
 SEQ ID NO 254  
 LENGTH: 6252  
 TYPE: DNA  
 ORGANISM: Homo sapiens  
 US-09-930-213-254

## Alignment Scores:

	2.66e-268	Length:	6252
Pred. No.:	2580.00	Matches:	654
Score:	50.63%	Conservative:	344
Percent Similarity:	50.63%	Mismatches:	713
Best Local Similarity:	33.18%	Indels:	260
Query Match:	25.83%	Gaps:	61
DB:	10		

US-09-964-956-13 (1-1896) x US-09-930-213-254 (1-6252)

QY 24 ThrLeuLeuThrArgGlnProAlaProLeuSerGlnValArgSerPheValThrPhe 43  
 DB ACCCTGCTGGGCGCTGCGGCGCAGGTGCCAGCTGAGGCCGCCCAAGCTGACTTCTTC 94  
 QY 44 ArgGlyGluProAlaGluGlyPheAsnHisLeuValValAspGluArgThrGlyHisIle 63  
 DB CCGACGCGAG-----AAAGAGCTGAACCACTGCTGTGATGAGGCTCAGGCGTGGTG 148  
 QY 64 TyrLeuGlyAlaValAlaAsnArgIleTyrIleuSerSerAspLeuLysValIleuValThr 83  
 DB TACCTGGGGGGCGGTGATAGCCCTTACCAAGCTGATGCAAGCTGACAGCTGAGCAGAG 208  
 QY 84 HisGluThrGlyProAspGluAspAsnProLysCysTyrProProArgIleValGlnThr 103  
 DB GTGGCCACGGGCGGCGGCGCTGACCAAGAGTGCACGCGGCCATCGAGGCCAGCCAG 268  
 QY 104 CysAsnGluProLeuThrThrAsnAsnValAsnLysMetLeuLeuIleAspTyrLys 123  
 DB TCCCATGAG-----GCTGAGATGACTGACATGTCACACGAGCTGCTGCTGCACCTGCC 325  
 QY 124 GluAsnArgLeuIleAlaCysGlySerLeuTyrGlnGlyIleCysLysLeuLeuArgLeu 143  
 DB AGAAGCGCGCTGTGAGTGCAGCGGCGCTTCAAGGGGAGTCTGCGCTGCGCGCCCTG 385  
 QY 144 GluAsp-----LeuPheLysLeuGlyGluProTyrHisLysLysGluHisTyrLeuSer 161  
 DB AGCAATATCTCCCTCCGCTGCTTACAGAGAGCGGAGGAGGAGAGATCTTGTGCGCC 445  
 QY 162 GlyValAsnGluSerGlySerValPheGlyValIleValSerTyrSerAsnLeuAspAsp 181  
 DB AGCAATGATGAGGCGCTGCGCACAGTGGGCTGTGAGCTCCACGCGTCTGTGGTATAC 505  
 QY 182 LysLeuPheIleIleAlaThrAlaValAspGlyLysProGluTyrPheProThrIleSerSer 201  
 DB CGGCTGCTGTTGTGGGCAAGGCAATGGGCGACACAGACGACATCATCTGTAGCACT 565  
 QY 202 ArgLysLeuThrLysAsnSerGlyAlaAspGlyMetPheAlaTyrValPheHisAspGlu 221  
 DB CGGCTGTTGACCGGACTGACAGCAGAGGCGCTTGAAGCTTACCGACCGACCGCCACC 625  
 QY 222 PheValAlaSerMetIleLysIleProSerAspThrPheThrIleLeuProAspPheAsp 241  
 DB TACAAAGCGCGCTACCTGTCCACCAACACACAGCACTC----- 664  
 QY 242 IleTyrTyrValTyrGlyPheSerSerGlyAsnPheValTyrPheLeuThrLeuGlnPro 261  
 DB -----GTGGCGGCTTCGAGGAGCGGCGCTACGTCTTCTTGTCTTCAACAGCAG 715  
 QY 262 GluMetValSerProProGlySerThrThrLysGluGlnValTyrThrSerLysLeuVal 281  
 DB GAAAGAG-----CACTCGGCGCGGAGCCGAC-----CTGCTGGGA 751  
 QY 282 ArgLeuCysLysGluAspThrAlaPheAsnSerTyrValGluValProIleGlyCysGlu 301  
 DB CGCATGTGACAGAGAGCCCACTACTACTCTACCTGAGATGAGACTGAGCTGAGCTCCG 811

QY 302 ArgSerGlyValGluTyrArgLeuLeuGlnAlaAlaTyrLeuSerLysAlaGlyAlaVal 321  
 DB GACCCCGACATCCAC-----GCCGTGCTT-----GGCACCTGC 847  
 QY 322 LeuGlyArgThrLeuGlyValHisProAspAspAspLeuLeuPheThrValPheSerLys 341  
 DB CTGGCGGCTCCGTGGCTGCGCTGCTGCGAGGGGTATATGCTGCTTCCAGCA 907  
 QY 342 GlyLysArgLysMetLysSerLeuAspGluSerAlaLeuCysIlePheIleLeuLys 361  
 DB GACAGC-----CGAGCAGATGGGGGGCCCGGTGGGGGCTTGTGCTTCCGTGAC 961  
 QY 362 GlnIleAsnAspArgIleLysGluArgLeuGlnSerCysTyrArgGlyGluGlyThrLeu 381  
 DB AAGGTGCACGCGCAAGATGAGGCCAACCGCACGCTGTAC-----ACAGCACCCGG 1015  
 QY 382 AspLeuAlaTrpLeuLysValLys-----AspIleProCysSerSerAlaLeu 397  
 DB GAGGCCGTGACATCTTCTACAGCCCTTCCACGGCGATATCACTGGCGGCGCACGG 1075  
 QY 398 LeuThrIleAspAspAsnPhe---CysGlyLeuAsp---MetAsnAlaProLeuGlyVal 415  
 DB CCGGCTCCAGCAGAGCTTCCCATGTGCTGAGAGCACTGCTACCTGCTGGAGAC 1135  
 QY 416 SerAspMetValArgGlyLysLeuProValPheThrGluAspArgAspArgMetThrSerVal 435  
 DB CCGCAGCGGCTGAGAGGACACGCTGCTGACGCTGAGAGGCTGACCTCACTCCGCGCTG 1195  
 QY 436 IleAlaTyrValTyrLysAsnHisSerLeuAlaPheValGlyThrLysSerGlyLysLeu 455  
 DB ACGGTGCGCGCGAGAACCAACCACTGTGCTTCTTGGGACCTCTGATGCGCGGAGAC 1255  
 QY 456 LysLysIleArgValAspGlyProArgLysAlaLeuGlnTyrGluThrValGlnVal 475  
 DB CTCAGGTGACTTACC---CCAGTGGACCTCTCTCAAGTACAGCTTCTCTG 1312  
 QY 476 ValAspProGlyProValLeuArgAspMetAlaPheSerLysAspHisGluGlnLeuTyr 495  
 DB GAGATTAACAAGAGATGCAAGCGGACCTGTACTCTGTGAGACCTGCGAGCCCTGTAC 1372  
 QY 496 IleMetSerGluArgGlnLeuThrArgValProValGluSerCysGlyGlnTyrGlnSer 515  
 DB GCCATGACCCAGGACAGAGGTGCTCCGCTGCGAGTGCAGAGAGTCTGAGCTACCCGAC 1432  
 QY 516 CysGlyLysCysLeuGlySerGlyAspProHisCysGlyTyrCysValLeuHisAsnThr 535  
 DB TGCACCGCAGGCGCGGACCTCCAGAGACCTTACTGCGGCTGTCGTCGTCGAGGAGCA 1492  
 QY 536 CysThrArgLysGluArgCysGlyLysSerLysGluProArgArgPheAla---SerGlu 554  
 DB TGCACCGCAGGCGCGGACCTCCAGAGACCTTACTGCGGCTGTCGTCGTCGAGGAGCA 1552  
 QY 555 MetLysGlnCysValArgLeuThr---ValHisProAsnAsnIleSer---ValSerGln 572  
 DB AGCAAGTCTGCTGTGGCGGTGACCAAGCGCCACCAAGAACTAGAGCGGCGGCGCAG 1612  
 QY 573 TyrAsnValLeuLeuValLeuGluTyrTyrAsnValProGluLeuSerAla-----Gly 590  
 DB GGGAGGTGAGCTGACGCTGACCGTACGCC-----CTCCCTGCTGAGCGAGAGAGAG 1666  
 QY 591 ValAsnGlyPhePheGluAspLeuSerGluMetAspGlyLeuValValGlyAsnGlnIle 610  
 DB TTGCTGTGCTTTTGGGAGGTGCGCGCCACACCCCGCGGTGAGAGCGGCGCGTCTC 1726  
 QY 611 GlnCysTyrSerProAlaAlaLysGluValProArgIleIleThrGluAsnGly---Asp 629  
 DB ATCTGCAACTCCCAACAGC-----ATCCCC-----GTCAACCGCAGCGCAGAGAC 1774  
 QY 630 HisHisValValGlnLeuGlnLeuLysSerLysGluThrGlyMetThrPheAlaSerThr 649  
 DB CAGGTGCGGTGACCATTCAGCTCTCTTACAGAGAGCAACATCTTCTCAGCTCTAC 1834  
 QY 650 SerPheValPheTyrAsnCysSerValHisAsnSer-----CysLeu 663





US-09-964-956-13 (1-1896) x US-10-108-260A-802 (1-3666)

QY 1510 AlaAsnSerProGluValProValIlylleuAsnCyAspThrIleThnGlnVallys 1529

Db 2 GCCAACAGCCCCGAGGCTCCAGTAAGATCCTCAAGTGTGACACCATCACTACAGCTCAAG 61

QY 1530 GluIlylleuAspAlaIlePheIlyAsnValProCySerHisArgProIlyAlaIa 1549

Db 62 GAGAGATTCTTGAGATGCCATCTTCAAGATGGCTTCTCCACCGGCCCAAGCTGCA 121

QY 1550 AspMetAspLeuGluTirPargIlnIySerGlyValIAspMetIleLeuGlnAspGluAsp 1569

Db 122 GATATGATCTGTGATGGGACAGAGAAAGTGGGGACAGAGATGATCTTGACAGATGAAGAC 181

QY 1570 IleThrThrIlylleGluAsnAspThrIlyAspArgIleuAsnThrLeuAlaHisTyrGlnVal 1589

Db 182 ATGACACCAAGATTGAGATATGTAAGACCACTGAAACACCTGGCCCACTACAGGTG 241

QY 1590 ProAspGlySerValValAlaLeuValSerIySglnValIThrAlaTyrAsnAlaValAsn 1609

Db 242 CCAGATGTTCCGTGGTGGCATTAAGTGTCAAGCAGGTGACAGCTTATAAGCAGGTGAAC 301

QY 1610 AsnSerThrValSerArgThrSerAlaSerIySglnValIAspMetIleArgTyrThrGly 1629

Db 302 AACTCCACCGTCCAGACCTCAGACCAATTAATGAAGAAATGATATCGGTACACGGGGC 361

QY 1630 SerProAspSerLeuArgSerArgThrProMetIleThrProAspLeuGluSerGlyVal 1649

Db 362 ACCCCCGACGCTCCGCTCAGCAGCACTAATGACCTGACCTCGAGCTGGAGGTGAGATC 421

QY 1650 LysMetTirPheIleuValIlyAsnHisSgIlySgIyAspGlnIySgIyIlyAspArgGly 1669

Db 422 AAGATGTGCACCTGTGTAAGAACCAAGCAGCAGCAAGCAAGAGAGGGGACCGGGGG 481

QY 1670 SerIlyMetValSerGluIleTyrLeuThrArgLeuLeuAlaThrIySgIyThrLeuGln 1689

Db 482 ACCAAGATGTGTCTGAATCTAAGTCAAGCCCACTCTGGCCATCAAGGGCACTGAG 541

QY 1690 LysPheValIAspAspLeuPheGluThrIlePheSerThrAlaHisArgIySerAlaLeu 1709

Db 542 AAGTTGTGATGACCTCTTGAAGACCATCTTCAAGACGGCAGCCGTGGCTGCTGCTG 601

QY 1710 ProLeuAlaIleIlySgIyMetPheAspPheLeuAspGluGlnAlaAspIlyHisGlyIle 1729

Db 602 CCCCTGGCATCAAGTACATGTTGACTTCTGATGACAGGCTGATTAACATGGCAT 661

QY 1730 HisAspProHisValArgHisThrTirPlySerAsnCySLeuProLeuArgPheTirVal 1749

Db 662 CATGACCCGACGCTCGCCATACCTGGAAGAGCAATGGCTGCCCTGAGGTTTGGGTC 721

QY 1750 AsnMetIleIlyAsnProGlnPheValIlePheAspIleHisIlyAsnSerIleThrAspAla 1769

Db 722 AACATATCAAGAACCCGACGTTGTGTTGATTCATCAAAACACGATCAACAGACGC 781

QY 1770 CysLeuSerValValAlaGlnThrPheMetAspSerCySerThrSerGluHisArgLeu 1789

Db 782 TGCTCTCTGTGTGTGCTGAGACTTCAAGACTCTGTGCTTCAAGTCAAGACCGGCTG 841

QY 1790 GlyIlyAspSerProSerAsnIlySLeuLeuTyrAlaIlyAspIleProSerTyrIlyAsn 1809

Db 842 GGGACAGACCTCGCCCTCCACAAAGCTGCTGTATGCCAAAGAAATCCCGCATCAAGAT 901

QY 1810 TirValIleArgTyrTyrSerAspIleGlyIlyMetProAlaIleSerAspGlnAspMet 1829

Db 902 TGCGTGAAGAGATTAATCTAGACATAGGGAAGATGCCAGCATACGACCAAGACATG 961

QY 1830 AsnAlaTyrLeuAlaGluGlnSerArgMetHisMetAsnGluPheAsnThrMetSerAla 1849

Db 962 AACGCAATACCTGCTGAGAGCTCCCGATGCAATGAAGATTCACCAACCTGAGTGA 1021

QY 1850 LeuSerGluIlePheSerTyrValIyIlySgIySerGluGluIleLeuGlyProLeuAsp 1869

Db 1022 CTCTCAGACATCTTCTCTATGTGGCAAAATACAGCAGACAGATCTCTGACCTTGAC 1081

QY 1870 HisAspAspGlnCySgIyIlySgIyLeuAlaTyrIlySLeuGluGlnValIleThrLeu 1889

Db 1082 CACGACGACCAAGTGTGGAAAGCAAGAACTGGCTCAAACTGAACAGTCAAAACCTTC 1141

QY 1890 MetSerLeuAspSer 1894

Db 1142 ATGAGCTTAGACAGC 1156

RESULT 7

US-10-245-103-91

/ Sequence 91, Application US/10245103

/ Publication No. US20030068778A1

/ GENERAL INFORMATION:

/ APPLICANT: Baker, Kevin

/ APPLICANT: Baton, Dan

/ APPLICANT: Filvaroff, Ellen

/ APPLICANT: Goddard, Audrey

/ APPLICANT: Grimaldi, J. Christopher

/ APPLICANT: Guiney, Austin

/ APPLICANT: Smith, Victoria

/ APPLICANT: Stephan, Jean-Philippe

/ APPLICANT: Matambe, Colin

/ APPLICANT: Wood, William

/ APPLICANT: Zhang, Zemin

/ APPLICANT: Fong, Sherman

/ TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC

/ FILE REFERENCE: P3630R1C112

/ CURRENT APPLICATION NUMBER: US/10/245,103

/ PRIOR FILING DATE: 2002-09-17

/ PRIOR APPLICATION NUMBER: 10/197942

/ PRIOR FILING DATE: 2002-07-18

/ PRIOR APPLICATION NUMBER: 60/059114

/ PRIOR FILING DATE: 1997-09-17

/ PRIOR APPLICATION NUMBER: 60/063046

/ PRIOR FILING DATE: 1997-10-24

/ PRIOR APPLICATION NUMBER: 60/065027

/ PRIOR FILING DATE: 1997-11-10

/ PRIOR APPLICATION NUMBER: 60/079689

/ PRIOR FILING DATE: 1998-03-27

/ PRIOR APPLICATION NUMBER: 60/086478

/ PRIOR FILING DATE: 1998-05-22

/ PRIOR APPLICATION NUMBER: 60/087607

/ PRIOR FILING DATE: 1998-06-02

/ PRIOR APPLICATION NUMBER: 60/089801

/ PRIOR FILING DATE: 1998-06-18

/ PRIOR APPLICATION NUMBER: 60/090557

/ PRIOR FILING DATE: 1998-06-24

/ PRIOR APPLICATION NUMBER: 60/090689

/ PRIOR FILING DATE: 1998-06-25

/ Remaining Prior Application data removed - See File Wrapper or PALM.

/ NUMBER OF SEQ ID NOS: 116

/ SEQ ID NO 91

/ LENGTH: 2597

/ TYPE: DNA

/ ORGANISM: Homo Sapien

US-10-245-103-91

Alignment Scores:

Pred. No.: 1.06e-137 Length: 2597

Score: 1372.00 Matches: 264

Percent Similarity: 100.00% Conservative: 1

Best Local Similarity: 99.62% Mismatches: 0

Query Match: 13.73% Indels: 0

DB: 14 Gaps: 0

US-09-964-956-13 (1-1896) x US-10-245-103-91 (1-2597)

QY 194 GluTyrPheProThrIleSerSerArgIlyLeuThrIlyAsnSerGluAlaAspGlyMet 213

Db 2 GAGTATTTTCCACCAATCTCCAGCCGAAACTGACCAAGAACTCTGAGGCGGATGGCATG 61

QY 214 PheAlaTyrValPheHisAspGluPheValAlaSerMetIleLeuSeriProSerAspThr 233  
DB 62 TTCGGATACGCTTCCATGATGAGTGGCTGCGATTAAGATCCCTCGACACC 121  
QY 234 PheThrIleIleProAspPheAspIleTyrTyrValTyrGlyPheSerSerGlyAsnPro 253  
DB 122 TTCACCATCATCCCTGACTTGATATCTACTAGTCTTAGGTTAGAGTGGCACTTT 181  
QY 254 ValTyrPheLeuThrLeuGlnProGluMetValSerProGlySerThrThrLeuGlu 273  
DB 182 GTCTACTTTTGACCTCCACACCGATGATGCTCCACACAGGCTCCACACAGAG 241  
QY 274 GlnValTyrThrSerLeuLeuValArgLeuGlyGluAspThrAlaPheAsnSerTyr 293  
DB 242 CAGGTGTATACATCCAAAGCTCGTGGCTTGCAGAGGAGACACAGCTTCACTCTAT 301  
QY 294 ValGluValProIleGlyCysGluArgSerGlyValGluTyrArgLeuGlnAlaAla 313  
DB 302 GTAGAGTGCCCATTTGGCTGTGAGCGCAGTGGGTGAGTACCGCTGCTCGACGGCTGCC 361  
QY 314 TyrLeuSerLeuAlaGlyAlaValLeuGlyArgThrLeuGlyValHisProAspAsp 333  
DB 362 TACCTGTCCAAAGCGGGGCGCTGCTGGACAGACCTTGGAGTCCATCCAGATGATGAC 421  
QY 334 LeuLeuPheThrValPheSerTyrGlyGlnLysArgLysMetLysSerLeuAspGluSer 353  
DB 422 CTGCTCTTCAACCGCTTCTCCAAAGGCCAGAAACGAAATGAATCCCTCGATGATGCG 481  
QY 354 AlaLeuCysIlePheIleLeuLysGlnIleAsnAspArgIleLeuGlyArgLeuGlnSer 373  
DB 482 GCCCTGTGATCTTTCATCTTGAAGCAGATAATGACCCCATTAAGAGACGGCTGACATCT 541  
QY 374 CysTyrArgGlyGlyGlyThrLeuAspLeuAlaTyrPheLysValLeuAspIleProCys 393  
DB 542 TGTATCCGGGGCGAGGGCGCGCTGAGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 601  
QY 394 SerSerAlaLeuLeuThrIleAspAspAsnProGlyLeuAspMetAsnAlaProLeu 413  
DB 602 AGCAGTGGCGCTCTTAACCATGACGATGATCTTCTGAGCGCTGACATGATGCTCCCTG 661  
QY 414 GlyValSerAspMetValArgGlyIleProValPheThrGluAspArgAspArgMetThr 433  
DB 662 GAGGTGTCGACATGATGCTGGAATCCCGCTTCCAGAGACGAGGACCGCATGACG 721  
QY 434 SerValIleAlaTyrValTyrLysAsnHisSerLeuAlaPheValGlyThrLysSerGly 453  
DB 722 TCTGTATCGCATATCTCAAAAGACCATCTCTGCGCTTGTGGGACCCAAAGTGGC 781  
QY 454 LysLeuLysLeuLeu 458  
DB 782 AAGCTGAGAGAGGTG 796

RESULT 8  
US-10-245-107-91  
Sequence 91, Application US/10245107  
Publication No. US20030068779A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin  
APPLICANT: Ektor, Dan  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Goddard, Audrey  
APPLICANT: Grimaldi, J. Christopher  
APPLICANT: Gurney, Austin  
APPLICANT: Smith, Victoria  
APPLICANT: Stephan, Jean-Philippe  
APPLICANT: Watanabe, Colin  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
APPLICANT: Fong, Sherman  
TITLE OF INVENTION: ACIDS ENCODING THE SAME  
FILE REFERENCE: P3630R1C71

CURRENT APPLICATION NUMBER: US/10/245,107  
CURRENT FILING DATE: 2002-09-16  
PRIOR APPLICATION NUMBER: 10/197942  
PRIOR FILING DATE: 2002-07-18  
PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
PRIOR FILING DATE: 1998-06-02  
PRIOR APPLICATION NUMBER: 60/089801  
PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
Number of Prior Application data removed - See File Wrapper or PALM.  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-245-107-91  
Alignment Scores:  
Pred. No.: 1,066-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conservative: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
Gaps: 0  
DB: 0  
US-09-964-956-13 (1-1896) x US-10-245-107-91 (1-2597)  
QY 194 GluTyrPheProThrIleSerSerArgLysLeuThrLysAsnSerGluAlaAspGlyMet 213  
DB 2 GAGATTTTCCACCATCTCCACCGGAAACTGACCAAGACCTGAGGCGATGCGACATG 61  
QY 214 PheAlaTyrValPheHisAspGluPheValAlaSerMetIleLeuSeriProSerAspThr 233  
DB 62 TTCGGATACGCTTCCATGATGAGTGGCTGCGATTAAGATCCCTCGACACC 121  
QY 234 PheThrIleIleProAspPheAspIleTyrTyrValTyrGlyPheSerSerGlyAsnPro 253  
DB 122 TTCACCATCATCCCTGACTTGATATCTACTAGTCTTAGGTTAGAGTGGCACTTT 181  
QY 254 ValTyrPheLeuThrLeuGlnProGluMetValSerProGlySerThrThrLeuGlu 273  
DB 182 GTCTACTTTTGACCTCCACACCGATGATGCTCCACACAGGCTCCACACAGAG 241  
QY 274 GlnValTyrThrSerLeuLeuValArgLeuGlyGluAspThrAlaPheAsnSerTyr 293  
DB 242 CAGGTGTATACATCCAAAGCTCGTGGCTTGCAGAGGAGACACAGCTTCACTCTAT 301  
QY 294 ValGluValProIleGlyCysGluArgSerGlyValGluTyrArgLeuGlnAlaAla 313  
DB 302 GTAGAGTGCCCATTTGGCTGTGAGCGCAGTGGGTGAGTACCGCTGCTCGACGGCTGCC 361  
QY 314 TyrLeuSerLysAlaGlyAlaValLeuGlyArgThrLeuGlyValHisProAspAsp 333  
DB 362 TACCTGTCCAAAGCGGGGCGCTGCTGGACAGACCTTGGAGTCCATCCAGATGATGAC 421  
QY 334 LeuLeuPheThrValPheSerTyrGlyGlnLysArgLysMetLysSerLeuAspGluSer 353  
DB 422 CTGCTCTTCAACCGCTTCTCCAAAGGCCAGAAACGAAATGAATCCCTCGATGATGCG 481  
QY 354 AlaLeuCysIlePheIleLeuLysGlnIleAsnAspArgIleLysGluArgLeuGlnSer 373



DB 482 GGCCTGTGATCTTCTTAACGATTAATGACCGATTAGAGCGGCTGCAGTCT 541  
QY 374 CysTyrArgGlyGluGlyThrLeuAspLeuAlaTrpLeuValLysAspIleProCys 393  
DB 542 TGTTACCGGGGCGACGCGTGCAGCTGGCTGGCTGAGGTGAAGACATCCCTGC 601  
QY 394 SerSerAlaLeuLeuThrIleAspAspAspPheCysGlyLeuAspMetAsnIaProLeu 413  
DB 602 AGCAGTGGCTCTTAACCATTAACCATTAACCTTGTGGCTGACATGAATGCTCCCTG 661  
QY 414 GluValSerAspMetValArgGlyIleProValPheThrGluAspArgAspMetThr 433  
DB 662 GGAATGTCACATGAGTGGCTGATTCCTGCTTACGAGAGGACAGGACCGCATGAG 721  
QY 434 SerValIleAlaIleValIleValAsnHisSerLeuAlaPheValGlyThrLysSerGly 453  
DB 722 TCTGTATCCCATATGTCTCAAGAACCACTCTGTGGCTTGTGGGCAACAAAGTGGC 781  
QY 454 LysLeuLysLysIle 458  
DB 782 AACCTGAAGAGGTG 796  
RESULT 9  
US-10-245-143-91  
; Sequence 91, Application US/10245143  
; Publication No. US20030068780A1  
; GENERAL INFORMATION:  
; APPLICANT: Baker, Kevin  
; APPLICANT: Baton, Dan  
; APPLICANT: Filvaroff, Ellen  
; APPLICANT: Goddard, Audrey  
; APPLICANT: Grimaldi, J. Christopher  
; APPLICANT: Gurney, Austin  
; APPLICANT: Smith, Victoria  
; APPLICANT: Stephan, Jean-Philippe  
; APPLICANT: Watanabe, Colin  
; APPLICANT: Wood, William  
; APPLICANT: Zhang, Zemin  
; APPLICANT: Fong, Sherman  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
TITLE OF INVENTION: ACTS ENCODING THE SAME  
FILE REFERENCE: P3630R1C90  
CURRENT APPLICATION NUMBER: US/10/245,143  
CURRENT FILING DATE: 2002-09-16  
PRIOR APPLICATION NUMBER: 10/197942  
PRIOR FILING DATE: 2002-07-18  
PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
PRIOR FILING DATE: 1998-06-02  
PRIOR APPLICATION NUMBER: 60/089801  
PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 116  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-245-143-91

Alignment Scores:  
Pred. No.: 1,056-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conservative: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
DB: 14 Gaps: 0  
US-09-964-956-13 (1-1896) x US-10-245-143-91 (1-2597)  
QY 194 GluTyrPheProThrIleSerSerArgLysLeuThrLysAsnSerGluAlaAspGlyMet 213  
DB 2 GAGATATTTCCACCATCTCCAGCGGAACTGACCAAGAACTTGAAGCGGATGCGCATG 61  
QY 214 PheAlaTyrValPheHisAspGluPheValAlaSerMetIleLysIleProSerAspThr 233  
DB 62 TTCGGTACGCTTCCTCCATGATGAGTGGCTGGCTCGATGATTAGATCCCTTCGACACC 121  
QY 234 PheThrIleIleProAspPheAspIleTyrTyrValTyrGlyPheSerSerGlyAsnPhe 253  
DB 122 TTCACCATCATCCCTGACTTGATATCTATATGTATGATGATTTAGCATGGCACTTT 181  
QY 254 ValTyrPheLeuThrLeuGluProGluMetValSerProProGlySerThrThrLysGlu 273  
DB 182 GTCTACTTTTGACCTTCACCTGACATGAGTGTGTCTCCACAGGCTCCACACCAAGAG 241  
QY 274 GluValIleTyrSerLysLeuValArgLeuCysLysGluAspThrAlaPheAsnSerTyr 293  
DB 242 CAGGTGTATACATCCAGACTGCTGAGCTTTGACAGGACACAGCTTCACTCAT 301  
QY 294 ValGluValProIleGlyCysGluArgSerGlyValGluTyrArgLeuGluAla 313  
DB 302 GTAGAGTGCCCATTCGCTGTGAGCGAGCGAGTGGAGTACCGCTCTCGACAGCTGCC 361  
QY 314 TyrLeuSerLysAlaGlyAlaValleuGluArgThrLeuGlyValHisProAspAsp 333  
DB 362 TACCTGTCCAAAGCGGGGCGCTGCTGGCAGGACCTTGAGTCCATCAGATGATAC 421  
QY 334 LeuLeuPheThrValPheSerLysGlyGluLysArgLysMetLysSerLeuAspGlySer 353  
DB 422 CTGCTCTTACCGCTTCTTCCAGGCGCAGAGCGGAAAGAAATCCCTGATGATGCG 481  
QY 354 AlaLeuCysIlePheIleLeuLysGluIleAspAspArgLysGluArgLeuGlnSer 373  
DB 482 GCCCTGTGATCTTATCTTGAAGCAGATTAATGACCCCATTAAGACCGGCTGACGTCT 541  
QY 374 CysTyrArgGlyGluGlyThrLeuAspLeuAlaTrpLeuValLysAspIleProCys 393  
DB 542 TGTTACCGGGGCGACGCGTGCAGCTGGCTGGCTGAGGTGAAGACATCCCTGC 601  
QY 394 SerSerAlaLeuLeuThrIleAspAspAspPheCysGlyLeuAspMetAsnIaProLeu 413  
DB 602 AGCAGTGGCTCTTAACCATTAACCATTAACCTTGTGGCTGACATGAATGCTCCCTG 661  
QY 414 GluValSerAspMetValArgGlyIleProValPheThrGluAspArgAspMetThr 433  
DB 662 GGAATGTCACATGAGTGGCTGATTCCTGCTTACGAGAGGACAGGACCGCATGAG 721  
QY 434 SerValIleAlaIleValIleValAsnHisSerLeuAlaPheValGlyThrLysSerGly 453  
DB 722 TCTGTATCCCATATGTCTCAAGAACCACTCTGTGGCTTGTGGGCAACAAAGTGGC 781  
QY 454 LysLeuLysLysIle 458  
DB 782 AACCTGAAGAGGTG 796  
RESULT 10  
US-10-245-771-91  
; Sequence 91, Application US/10245771  
; Publication No. US20030068781A1  
; GENERAL INFORMATION:  
; APPLICANT: Baker, Kevin  
; APPLICANT: Baton, Dan



PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 116  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-245-883-91

Alignment Scores:  
Pred. No.: 1.06e-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conservative: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
DB: Gaps: 14

US-09-964-956-13 (1-1896) x US-10-245-883-91 (1-2597)

QY 194 GluTYRphProthrlleSerSerArglyLeuThrlyAsnSergluAlaaspGlyMet 213  
DB 2 GAGTATTTTCCACCATCTCCAGCGGAACTGACCAAGACTCTGAGCGGATGGCAGT 61  
QY 214 PheAlaTYrValPheHisaspGluPheValAlaSerMetIleYsIleProSerAspThr 233  
DB 62 TTCGCGTACGCTTCATGATGAGTTGTGCTTCGATGATTAAGTTCCTTGGACACC 121  
QY 234 PheThrIleIleProaspPheAspIleTYrTYrValTYrGlyPheSerSerglyAsn 253  
DB 122 TTCACCATCATCCCTGATCTTGAATCTACTATGCTATGTTTGAAGTGGCACTTT 181  
QY 254 ValTYrPheLeuThrLeuGlnProGluMetValSerProGlySerThrThrlySgu 273  
DB 182 GTCTACTTTTGGACCTCCCAACGAGATGTTCTTCCACAGCTCCACCAAGAGAG 241  
QY 274 GluAlaTYrThrSerlyLeuValArgLeuCYeLYsgluAspThrAlaPheAsnSery 293  
DB 242 CAGGTGATACATCCAGCTCGTGAAGCTTTGAGAGAGACACAGCTTCACTCTAT 301  
QY 294 ValGluValProIleGlyCYeGluAspSerglyValGluTYrArgLeuGlnAlaAla 313  
DB 302 GTAGAGGTGCCCATTTGCTGTGAGCGAGGTGAGTACCGCTGCGAGGCTGCC 361  
QY 314 TYrLeuSerlysaIaGlyAlaValLeuGlyArgThrLeuGlyValHisProaspAsp 333  
DB 362 TACCTGTCCAAAGCGGAGCGCTGCTGAGCGAGGTGAGTACCGCTGCGAGGCTGCC 421  
QY 334 LeuLeuPheThrValPheSerlyGlyGlnLYsArglySernLYsSerLeuaspGlu 353  
DB 422 CTGCTCTTACACCGCTTCTCCAAAGGCGCAAGCGGAAATGAAATCCCTGATGAGTGC 481  
QY 354 AlaLeuCYeIlePheIleLeuLYsGlnIleAsnAspArgIleLYsGluArgLeuGln 373  
DB 482 GCCCTGTGACATCTTCACTTGAGAGATTAATGACCGCATTAAGACCGGCTGCACTT 541  
QY 374 CYeTYrArglyGlyGluTYrThrLeuaspLeuAlaTYrPheLYsVallyAspIlePro 393  
DB 542 TGTACCGGAGCGAGGAGCAGCTGACCTGCGCTGAGGTGAAGGACATCCCTGCG 601  
QY 394 SerSerAlaLeuLeuThrIleAspAspAspPheCYeGlyLeuaspMetAlaAlaPro 413  
DB 602 AGCGGTGCGCTTACCATGACATGACATTACTTGTGTGCTGAGCATTAATGCTCCCTG 661  
QY 414 GlyValSerAspMetValArgGlyIleProValPheThrGluAspArgAspMetThr 433  
DB 662 GGAATGTCCGACATGAGTGCCTGGAATTCCTTCAAGGAGGACAGGACCCCATGACG 721  
QY 434 SerValIleAlaTYrValTYrLYsAsnHisSerLeuAlaPheValGlyThrlySergly 453

DB 722 TCTGTCATCGCATATGCTACTACAAAGACACTCTCTGCGCTTGTGAGGACCAAAAGTGGC 781  
QY 454 LysLeuLYsLYsIle 458  
DB 782 AAGCTGAAGAAAGTGG 796  
RESULT 12  
US-10-245-883-91  
Sequence 91, Application US/10245883  
Publication No. US20030068783A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin  
APPLICANT: Batson, Dan  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Goddard, Audrey  
APPLICANT: Grimaldi, J. Christopher  
APPLICANT: Guiney, Austin  
APPLICANT: Smith, Victoria  
APPLICANT: Stephan, Jean-Philippe  
APPLICANT: Watande, Colin  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
APPLICANT: Pong Sherman  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
FILE REFERENCE: P3630R1C70  
CURRENT APPLICATION NUMBER: US/10/245, 883  
PRIOR FILING DATE: 2002-09-16  
PRIOR APPLICATION NUMBER: 10/197942  
PRIOR FILING DATE: 2002-07-18  
PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
PRIOR FILING DATE: 1998-06-02  
PRIOR APPLICATION NUMBER: 60/089801  
PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 116  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-245-883-91  
Alignment Scores:  
Pred. No.: 1.06e-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conservative: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
DB: Gaps: 14  
US-09-964-956-13 (1-1896) x US-10-245-883-91 (1-2597)  
QY 194 GluTYRphProthrlleSerSerArglyLeuThrlyAsnSergluAlaaspGlyMet 213  
DB 2 GAGTATTTTCCACCATCTCCAGCGGAACTGACCAAGACTCTGAGCGGATGGCAGT 61  
QY 214 PheAlaTYrValPheHisaspGluPheValAlaSerMetIleYsIleProSerAspThr 233  
DB 62 TTCGCGTACGCTTTCATGATGAGTTGTGCTTCGATGATTAAGTTCCTTGGACACC 121

234 PheThrIleIleProAspPheAspIleTyrTyrValTyrGlyPheSerSerGlyAsnPro 253  
122 TTCACCATCATCTCCGACTTGTGATCTATGCTATGCTTGTATGACGAGGCACTTT 181  
254 ValTyrPheLeuThrLeuGlnProGluMetValSerProProGlySerThrThrLeuGlu 273  
182 GTCTCTTTTTCACCTTCCACCTGATGATGTGTCTCCACCAAGGCTCCACCAAGGAG 241  
274 GlnValTyrThrSerLeuValArgLeuCysGlyAspThrValPheAsnSerTyr 293  
242 CAGGTGATACATCCACAGCTCGTAGGCTTTGCAAGAGGAGCACAGCTTCACTCCAT 301  
294 ValGlnValProIleGlyCysGlnArgSerGlyValGlyTyrArgLeuLeuGlnAla 313  
302 GTAGAGGTGCCCATTTGGCTGTGAGCGAGTGGGGAGTACCGCTCTGCAAGGCTGCC 361  
314 TyrLeuSerLeuAlaGlyValValLeuGlyArgThrLeuGlyValHisProAspAsp 333  
362 TACCTGTCCAAAGCGGGGCGGTGCTTGGCAGGACCTTGGAGTCCATCCAGATGATAC 421  
334 LeuLeuPheThrValPheSerLeuGlyGlnValArgValMetLeuSerLeuAspGlnSer 353  
422 CTGCTCTTCAACCGTCTTCTCCAAAGGCCGAAAGCGGAAATGAAATCCCTGATGATCG 481  
354 AlaLeuCysIlePheIleLeuLysGlnIleAsnAspArgIleLeuGlyValArgLeuGlnSer 373  
482 GCCCTGTGATCTTCTTCTGAAAGCAGATGATGACCGGATTAAGAGAGCGGCTGACGCT 541  
374 CysTyrArgGlyGlyGlyTyrLeuAspLeuAlaTyrLeuLysValLeuAspIleProCys 393  
542 TGTATCCGGGGCGGAGGCGACGCTGACCTGGCTGCTCAAGATGAAGACATCCCTGGC 601  
394 SerSerAlaLeuLeuThrIleAspAspAspPheCysGlyLeuAspMetAsnIleProLeu 413  
602 AGCAGTGGCTCTTAAACCATTTGACGATACCTTGTGGCTGACATGATCTCCCTG 661  
414 GlyValSerAspMetValArgGlyIleProValPheThrGlnAspArgAspArgMetThr 433  
662 GAGGTGCCGACATGATGGTGGATTTCCGCTTTCACGAGACAGGAGCGGACATGACG 721  
434 SerValIleAlaTyrValTyrLysAsnHisSerLeuAlaPheValGlyThrLysSerGly 453  
722 TCTGTATCGCATGATGCTCAAGAACACTCTCTGCTTGTGGGACCCAAAGTGGC 781  
454 LysLeuLysLysIle 458  
782 AAGCTGAAGAGGTG 796

RESULT 13  
US-10-237-535-91  
Sequence 91, Application US/10237535  
Publication No. US20030073188A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin  
APPLICANT: Eaton, Dan  
APPLICANT: Filizroff, Ellen  
APPLICANT: Goddard, Audrey  
APPLICANT: Grimaldi, J. Christopher  
APPLICANT: Gurney, Austin  
APPLICANT: Smith, Victoria  
APPLICANT: Stephan, Jean-Phillippe  
APPLICANT: Matambe, Colin  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
APPLICANT: Feng, Sherman  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
FILE OF INVENTION: ACIDS ENCODING THE SAME  
FILE REFERENCE: P3630R1C3  
CURRENT APPLICATION NUMBER: US/10/237,535  
CURRENT FILING DATE: 2002-09-06  
PRIOR APPLICATION NUMBER: 10/197942  
PRIOR FILING DATE: 2002-07-18

PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
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PRIOR APPLICATION NUMBER: 60/089801  
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PRIOR FILING DATE: 1998-07-07  
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PRIOR FILING DATE: 1998-09-10  
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PRIOR FILING DATE: 1999-01-12  
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PRIOR FILING DATE: 1999-02-09  
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PRIOR APPLICATION NUMBER: 60/127372  
PRIOR FILING DATE: 1999-04-01  
PRIOR APPLICATION NUMBER: 60/131271  
PRIOR FILING DATE: 1999-04-27  
PRIOR APPLICATION NUMBER: 60/133459  
PRIOR FILING DATE: 1999-05-11  
PRIOR APPLICATION NUMBER: 60/135725  
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PRIOR APPLICATION NUMBER: 60/150114  
PRIOR FILING DATE: 1999-08-20  
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PRIOR APPLICATION NUMBER: 60/177118  
PRIOR FILING DATE: 2000-01-20  
PRIOR APPLICATION NUMBER: 60/179851  
PRIOR FILING DATE: 2000-02-02  
PRIOR APPLICATION NUMBER: 60/180921  
PRIOR FILING DATE: 2000-02-08  
PRIOR APPLICATION NUMBER: 60/187202  
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PRIOR FILING DATE: 2000-04-18  
PRIOR APPLICATION NUMBER: 60/199614  
PRIOR FILING DATE: 2000-04-25  
PRIOR APPLICATION NUMBER: 60/206330  
PRIOR FILING DATE: 2000-05-23  
PRIOR APPLICATION NUMBER: 60/206368  
PRIOR FILING DATE: 2000-05-23  
PRIOR APPLICATION NUMBER: 60/209832  
PRIOR FILING DATE: 2000-06-05  
PRIOR APPLICATION NUMBER: 60/218371  
PRIOR FILING DATE: 2000-07-13  
PRIOR APPLICATION NUMBER: 60/222695  
PRIOR FILING DATE: 2000-08-02  
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PRIOR APPLICATION NUMBER: 60/232887  
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PRIOR APPLICATION NUMBER: 60/235147  
PRIOR FILING DATE: 2000-09-22  
PRIOR APPLICATION NUMBER: 60/261878  
PRIOR FILING DATE: 2001-01-12  
PRIOR APPLICATION NUMBER: 60/261910  
PRIOR FILING DATE: 2001-01-16  
PRIOR APPLICATION NUMBER: 60/261939  
PRIOR FILING DATE: 2001-01-16  
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PRIOR FILING DATE: 2001-01-16  
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PRIOR FILING DATE: 2001-01-25  
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PRIOR FILING DATE: 2001-02-02  
PRIOR APPLICATION NUMBER: 60/267623  
PRIOR FILING DATE: 2001-02-09  
PRIOR APPLICATION NUMBER: 60/274399  
PRIOR FILING DATE: 2001-03-09  
PRIOR APPLICATION NUMBER: 60/280982  
PRIOR FILING DATE: 2001-04-03  
PRIOR APPLICATION NUMBER: 60/282129  
PRIOR FILING DATE: 2001-04-04  
PRIOR APPLICATION NUMBER: 60/282199  
PRIOR FILING DATE: 2001-04-04  
PRIOR APPLICATION NUMBER: 60/290589  
PRIOR FILING DATE: 2001-05-09  
PRIOR APPLICATION NUMBER: 09/180997  
PRIOR FILING DATE: 1998-11-19  
PRIOR APPLICATION NUMBER: 09/267213  
PRIOR FILING DATE: 1999-03-12  
PRIOR APPLICATION NUMBER: 09/380137  
PRIOR FILING DATE: 1999-08-25  
PRIOR APPLICATION NUMBER: 09/380138  
PRIOR FILING DATE: 1999-08-25

PRIOR APPLICATION NUMBER: 09/403297  
PRIOR FILING DATE: 1999-10-18  
PRIOR APPLICATION NUMBER: 09/423741  
PRIOR FILING DATE: 1999-11-10  
PRIOR APPLICATION NUMBER: 09/709238  
PRIOR FILING DATE: 2000-11-08  
PRIOR APPLICATION NUMBER: 09/802706  
PRIOR FILING DATE: 2001-03-09  
PRIOR APPLICATION NUMBER: 09/872035  
PRIOR FILING DATE: 2001-06-01  
PRIOR APPLICATION NUMBER: 09/918585  
PRIOR FILING DATE: 2001-07-30  
PRIOR APPLICATION NUMBER: 09/924419  
PRIOR FILING DATE: 2001-08-06  
PRIOR APPLICATION NUMBER: 09/927796  
PRIOR FILING DATE: 2001-08-09  
PRIOR APPLICATION NUMBER: 09/929404  
PRIOR FILING DATE: 2001-08-13  
PRIOR APPLICATION NUMBER: 09/931836  
PRIOR FILING DATE: 2001-08-16  
PRIOR APPLICATION NUMBER: 09/941992  
PRIOR FILING DATE: 2001-08-28  
PRIOR APPLICATION NUMBER: 09/946374  
PRIOR FILING DATE: 2001-09-04  
PRIOR APPLICATION NUMBER: 10/001054  
PRIOR FILING DATE: 2001-11-30  
PRIOR APPLICATION NUMBER: 10/052586  
PRIOR FILING DATE: 2002-01-15  
PRIOR APPLICATION NUMBER: 10/081056  
PRIOR FILING DATE: 2002-02-20  
PRIOR APPLICATION NUMBER: 10/119480  
PRIOR FILING DATE: 2002-04-09

Alignment Scores:  
Pred. No.: 1,086-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conservative: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
DB: 14 Gaps: 0

US-09-964-956-13 (1-1896) x US-10-237-535-91 (1-2597)

QY 134 GIUTYRPHETHTHRSERARGLYSEUTHRYSAENSERGLUALASPGLYMET 213  
DB 2 GNGHRTTCCCATTCACGCCGAACTGCAGAACTGTAGGCGCATG 61  
QY 214 PHEALARYVALPHEH:ASPGIUPHEVALALASERNETILYSLIEPROSERASPTH 233  
DB 62 TTCGGTACGCTTCATCATGATGAGTTCGTGCTTCGATTAAGATCCCTTCGACACC 121  
QY 234 PHEHTRIELLEPROASPHEASPILETTYRVALTYRGYPHESERSEGLYASNPHE 253  
DB 122 TTCACCATCATCCCGACTTGATTAATCTACTATGTCTHGTGTTTGGAGGCGAACTTT 181  
QY 254 VALTYRPHLEUTHRLIUGINPROGLIUMETVALSERPROGLYSETHTHLYSGIU 273  
DB 162 GTCACCTTTTGACCTCCCACTGAGATGATGCTCCACACGAGCTCCACCAAGAG 241  
QY 274 GINVALTYRTHRSERLYSEUVALARGLEUCYELYSGLIUAAPTTHRALPHEASERTYR 293  
DB 242 CAGGTGTATCATCCMAAGCTGTGAGGCTTTGCAAGGAGACACGCTTCACTCTAT 301  
QY 294 VALGIUVALPROILEGLYCYEGIUNRSERGLYVALGIUTYRATGLEULEGUALA 313  
DB 302 GTAGAGGTGCCATTCGTGTGAGGCGAGTGGGGGAGTACCGCTCTCAGGCTGCC 361  
QY 314 TYRLEUSERLYSALAGLYALVALLEUGLYVARGHTRLEUGLYVALHISPRASPSASP 333  
DB 362 TACCTGTCCAAAGCGGGGCGGTGTGCGAGGACCTTGAGTCCATTCAGATGATAC 421  
QY 334 LEULPHEHTHVALPHESELYSGIUNLYSARGLYSMETLYSERLEUASPSIUBER 353

Db 422 CTGCTCTTCAACCGCTCTTCTCCAGAGGCGAGAAACCGAAATCCCTGATGATGCG 481  
Qy 354 AAlaLeuCySlePheIleLeuYsgInIleAsnAspArgIleYsGluArgLeuInsEr 373  
Db 482 GCCCTTGATCTTCTTCTTGAAGCAGATTAATGACCGCATTAAGAGGCGGTGACAGCT 541  
Qy 374 CyETyArgGlyGluGlyThrIleAspIleuAlaITPLeuYsValYsAspIleProCys 393  
Db 542 TGTACCGGGGCGAGGCGACGCTGACCTGGCTCAGAGTGAAGACATCCCTGCG 601  
Qy 394 SerSerAlaLeuLeuThrIleAspAspAspPheCysGlyLeuAspMetSerAlaProLeu 413  
Db 602 AGCAGTGGCGCTTTAACCATTGACATTACTTGTGGCTGACATGAATCTCCCTGC 661  
Qy 414 GlyValSerAspMetValArgGlyIleProValPheThrGluAspArgAspMetThr 433  
Db 662 GAGGTGCGACATGGCGGTGGAATTCCTTCCACGAGAGACAGGAGCGCATGACG 721  
Qy 434 SerValIleAlaTyrtValTyrtYsAsnHisSerLeuAlaPheValGlyThrYsSerGly 453  
Db 722 TGTGTATCGCATATGCTTAACAAGAACCACTCTGTGGCTTGTGGCACCAAAAGTGGC 781  
Qy 454 LysLeuYsLysIle 458  
Db 782 AAGCTGAAGAGGTG 796  
RESULT 14  
US-10-238-183-91  
Sequence 91, Application US/10238183  
Publication No. US20030073189A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin  
APPLICANT: Eaton, Dan  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Goddard, Audrey  
APPLICANT: Grimaldi, J. Christopher  
APPLICANT: Gurney, Austin  
APPLICANT: Smith, Victoria  
APPLICANT: Stephan, Jean-Philippe  
APPLICANT: Metabene, Colin  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
APPLICANT: Feng, Sherman  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
FILE REFERENCE: P3630R1C11  
CURRENT APPLICATION NUMBER: US/10/238,183  
CURRENT FILING DATE: 2002-09-09  
PRIOR APPLICATION NUMBER: 10/187942  
PRIOR FILING DATE: 2002-07-18  
PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
PRIOR FILING DATE: 1998-06-02  
PRIOR APPLICATION NUMBER: 60/089801  
PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
PRIOR APPLICATION NUMBER: 60/091358  
PRIOR FILING DATE: 1998-07-01  
PRIOR APPLICATION NUMBER: 60/091978  
PRIOR FILING DATE: 1998-07-07  
PRIOR APPLICATION NUMBER: 60/099803

;; PRIOR FILING DATE: 1998-09-10  
;; PRIOR APPLICATION NUMBER: 60/106932  
;; PRIOR FILING DATE: 1998-11-03  
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;; PRIOR APPLICATION NUMBER: 60/123972  
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;; PRIOR APPLICATION NUMBER: 60/131271  
;; PRIOR FILING DATE: 1999-04-27  
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;; PRIOR FILING DATE: 1999-05-25  
;; PRIOR APPLICATION NUMBER: 60/135750  
;; PRIOR FILING DATE: 1999-05-25  
;; PRIOR APPLICATION NUMBER: 60/138385  
;; PRIOR FILING DATE: 1999-06-09  
;; PRIOR APPLICATION NUMBER: 60/140653  
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;; PRIOR APPLICATION NUMBER: 60/141037  
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PRIOR APPLICATION NUMBER: 60/209832  
PRIOR FILING DATE: 2000-06-05  
PRIOR APPLICATION NUMBER: 60/218371  
PRIOR FILING DATE: 2000-07-13  
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PRIOR FILING DATE: 2000-09-01  
PRIOR APPLICATION NUMBER: 60/230621  
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PRIOR APPLICATION NUMBER: 60/232887  
PRIOR FILING DATE: 2000-09-15  
PRIOR APPLICATION NUMBER: 60/235147  
PRIOR FILING DATE: 2000-09-22  
PRIOR APPLICATION NUMBER: 60/261878  
PRIOR FILING DATE: 2001-01-12  
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PRIOR APPLICATION NUMBER: 60/274399  
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PRIOR APPLICATION NUMBER: 60/280982  
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PRIOR APPLICATION NUMBER: 60/282199  
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PRIOR FILING DATE: 2001-05-09  
PRIOR APPLICATION NUMBER: 09/180997  
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PRIOR FILING DATE: 1999-11-10  
PRIOR APPLICATION NUMBER: 09/709238  
PRIOR FILING DATE: 2000-11-08  
PRIOR APPLICATION NUMBER: 09/802706  
PRIOR FILING DATE: 2001-03-09  
PRIOR APPLICATION NUMBER: 09/872035  
PRIOR FILING DATE: 2001-06-01  
PRIOR APPLICATION NUMBER: 09/918585  
PRIOR FILING DATE: 2001-07-30  
PRIOR APPLICATION NUMBER: 09/924419  
PRIOR FILING DATE: 2001-08-06  
PRIOR APPLICATION NUMBER: 09/927796  
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PRIOR APPLICATION NUMBER: 09/929404  
PRIOR FILING DATE: 2001-08-13  
PRIOR APPLICATION NUMBER: 09/931836  
PRIOR FILING DATE: 2001-08-16  
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PRIOR FILING DATE: 2001-09-04  
PRIOR APPLICATION NUMBER: 10/001054  
PRIOR FILING DATE: 2001-11-30  
PRIOR APPLICATION NUMBER: 10/052586  
PRIOR FILING DATE: 2002-01-15  
PRIOR APPLICATION NUMBER: 10/081056  
PRIOR FILING DATE: 2002-02-20  
PRIOR APPLICATION NUMBER: 10/119480  
PRIOR FILING DATE: 2002-04-09

Alignment Scores:  
Pred. No.: 1.06e-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conserved: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
DB: 14 Gaps: 0

US-09-964-956-13 (1-1896) x US-10-238-183-91 (1-2597)

QY 194 GluTyrPheProThrIleSerSerArgIleuThrIleAsnSerGluAlaAspGlyMet 213  
Db 2 GAGTATTTTCCACATCTCCAGCGGAACTGACCAAGACTTGAGGCGGATGGCATG 61  
QY 214 PheAlaTyrValPheHisAspGluPheValAlaSerMetIleuIleProSerAspThr 233  
Db 62 TTCCCGTACGCTCTCCATGATGATGCTGAGCGCTCGATGATTAGATCCCTTCGACACC 121  
QY 234 PheThrIleIleProAspPheAspIleTyrTyrValTyrGlyPheSerSerGlyAsnPhe 253  
Db 122 TTCAACATCATCCCTGACTTGATATCTATGATGTTTACAGAGGCACTTT 181  
QY 254 ValTyrPheLeuThrIleGluInProGluMetValSerProProGlySerThrThrIleGlu 273  
Db 182 GTTACTTTTGAACCTCCCAACCTGATGCTGCTCCACAGGCTCCACCAAGAGAG 241  
QY 274 GluValTyrThrSerIleuValIleuGluCysIleGluAspThrAlaPheAsnSerTyr 293  
Db 242 CAGGTATATCATCAAGCTGCTGAGGCTTGCAAGAGAGACACAGGCTTCACTCTAT 301  
QY 294 ValGluValProIleGlyCysGluArgSerGlyValGluTyrArgLeuGluAlaAla 313  
Db 302 GTAGAGTGCCCATTTGGCTGAGCGCAGTGGGTGAGTGCCTGCTGACAGGCTGCC 361  
QY 314 TyrLeuSerIleuValIleuValIleuGluValIleuGluValIleuProAspAsp 333  
Db 362 TACCTGTCAAAGCGGGCGCTGCTGAGCAAGCCTTGAGTCCATCCAGATGATGAC 421  
QY 334 LeuLeuPheThrValPheSerIleuGluIleuValIleuGluValIleuGluValIleu 353  
Db 422 CTGCTTCACCGCTTCTCCAAAGGCGCAAGAGCAAAATGAATCCCTGATGATGCTG 481  
QY 354 AlaLeuCysIlePheIleuLeuIleuGluIleuAsnAspArgIleuGluArgLeuIleu 373  
Db 482 GCCCTGTCATCTTCATTTGAACAAGTAATATACCGCATTAAGAGCGGCTGACAGCT 541  
QY 374 CysTyrArgGlyGluGlyThrLeuAspLeuAlaThrLeuIleuValIleuAspIleProCys 393  
Db 542 TGTATCCCGGCGAGGCGACCTGACCTGCGCTCAAGGAGGAGACATCCCTGAC 601  
QY 394 SerSerAlaLeuLeuThrIleAspAspAsnIleuGlyLeuAspMetAsnAlaProLeu 413  
Db 602 AGCATGCGCTCTTATACCATTTGATGATGCTGAGCGCTGATGATGCTGCTGCTG 661  
QY 414 GlyValSerAspMetValArgGlyIleProValPheThrGluAspAspArgMetThr 433  
Db 662 GAGGTGTCGACATGAGTGCAGGAAATCCCTTCACGAGGAGACAGGACCGATGACG 721  
QY 434 SerValIleuAlaTyrValTyrIleuAsnIleuSerIleuAlaPheValGlyThrIleuSerGly 453  
Db 722 TCTGTCATCGCATATGCTTACAAAGAACCACTCTGAGCTTTGAGGACCAAAAGTGGC 781  
QY 454 LysLeuLysIle 458



DB 782 AACCTGAAGAGGTG 796

RESULT 15  
US-10-238-283-91  
Sequence 91, Application US/10238283  
Publication No. US20030073190A1  
GENERAL INFORMATION:  
APPLICANT: Baker, Kevin  
APPLICANT: Baton, Dan  
APPLICANT: Filvaroff, Ellen  
APPLICANT: Goddard, Audrey  
APPLICANT: Grimaldi, J. Christopher  
APPLICANT: Guiney, Austin  
APPLICANT: Smith, Victoria  
APPLICANT: Stephan, Jean-Philippe  
APPLICANT: Watande, Colin  
APPLICANT: Wood, William  
APPLICANT: Zhang, Zemin  
APPLICANT: Fong, Sherman  
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
FILE REFERENCE: B3630R1C15  
CURRENT FILING DATE: 2002-09-09  
PRIOR APPLICATION NUMBER: US/10/238, 283  
PRIOR FILING DATE: 2002-09-09  
PRIOR APPLICATION NUMBER: 10/197942  
PRIOR FILING DATE: 2002-07-18  
PRIOR APPLICATION NUMBER: 60/059114  
PRIOR FILING DATE: 1997-09-17  
PRIOR APPLICATION NUMBER: 60/063046  
PRIOR FILING DATE: 1997-10-24  
PRIOR APPLICATION NUMBER: 60/065027  
PRIOR FILING DATE: 1997-11-10  
PRIOR APPLICATION NUMBER: 60/079689  
PRIOR FILING DATE: 1998-03-27  
PRIOR APPLICATION NUMBER: 60/086478  
PRIOR FILING DATE: 1998-05-22  
PRIOR APPLICATION NUMBER: 60/087607  
PRIOR FILING DATE: 1998-06-02  
PRIOR APPLICATION NUMBER: 60/089801  
PRIOR FILING DATE: 1998-06-18  
PRIOR APPLICATION NUMBER: 60/090557  
PRIOR FILING DATE: 1998-06-24  
PRIOR APPLICATION NUMBER: 60/090689  
PRIOR FILING DATE: 1998-06-25  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 116  
SEQ ID NO 91  
LENGTH: 2597  
TYPE: DNA  
ORGANISM: Homo Sapien  
US-10-238-283-91

Alignment Scores:  
Pred. No.: 1.06e-137 Length: 2597  
Score: 1372.00 Matches: 264  
Percent Similarity: 100.00% Conservative: 1  
Best Local Similarity: 99.62% Mismatches: 0  
Query Match: 13.73% Indels: 0  
DB: 14 Gaps: 0

US-09-964-956-13 (1-1896) x US-10-238-283-91 (1-2597)

QY 194 GLUTyRPhPProThriIleSeSerArgLyLeuThrLyAsnSerGIuAlaAspGIyMet 213  
DB 2 GAGTATTTTCCACCATCTCCACCGGAAGTACCAAGACTCTGAGCGGATGGCATG 61

QY 214 PheAlATyRValPheHisAspGIuPheValAlaSerMetIleLySIIePProSerAspThr 233  
DB 62 TTGGCGTACGCTCTTCATGATGATCGTGGCTTCGATGATTAAGATCCCTTCGAGACACC 121

QY 234 PheThrIleIleProAspPheAspIleTyRyTyRValTyRGIyPheSerSerGIyAsnPh 253

DB 122 TTCACCATCATCCCTGACTTGTATATCTACTATGTCTATGAGCTTTTGAAGTGGCAACTT 181

QY 254 ValTyRPhPLeuThrIleuGIuPProGIuMeValSerProGIySerThrThrLySIIu 273

DB 182 GTCTACTTTTGGACCCCTCCACCTGAGATGTGTCTCCACAGGCTTCACACCAAGAG 241

QY 274 GluValTyRThSerLySIIeValArgLeuCySIIySIIuAspThralaPheAsnSerTyR 293

DB 242 CAGGTGTATCATTCACCAAGCTCGTGAAGCTTTGCAAGAGGACACAGCTTCACTCTAT 301

QY 294 ValGIuValProIIeGIyCySIIuArgSerGIyValGIuTyRArgIleuGIuAla 313

DB 302 GTAGAGGTGGCCATTTGCTGTGAGCGGAGTGGAGTACCGCTGTCAGAGCTGCC 361

QY 314 TyRLeuSerLySIIaGIyAlaValLeuGIyArgTyRThrIleuGIyValHisProAspAsp 333

DB 362 TACTGTCCAAAGCGGGGCGTGTGGAGACCTTGGAGCTTCATCCATGATGATGAC 421

QY 334 LeuLeuPheThrValPheSerLySIIyGIuLyArgLySIIeSerLeuAspGIuSer 353

DB 422 CTGCTCTTCAACCGCTTCTCCAAAGGCGCAGAAATGAAATCCCTGATGATGATCG 481

QY 354 AlaLeuCySIIePheIleLeuLySIIuLeuAspArgIleLySIIuArgLeuGIuSer 373

DB 482 GCCGTGTGATCTTCACTTGAAGCAGATTAATGACCGCATTAAGAGCGGCTGCACTCT 541

QY 374 CysTyRArgLySIIuGIyThrLeuAspLeuAlaTrpLeuLySIIaAspIleProCyS 393

DB 542 TGTACCGGGGCGAGGCGACGTGAGCTGGCTGAGGTGAAGTGAAGCATCCCTGCG 601

QY 394 SerSerAlaLeuLeuThrIleAspAspAspPheCySIIyLeuAspMetAlaAlaProLeu 413

DB 602 AGCAGTGGCTCTTAACCATTTGACGATTAACCTTGTGGCTTGACATGAATGCTCCCTG 661

QY 414 GIyValSerAspMetValArgLyIleProValPheThrGIuAspArgAspArgMetThr 433

DB 662 GAGTGTCCGACATGTGTGGCTGGATTCCTGCTTCAAGAGGACAGGACCGCATGACG 721

QY 434 SerValIleAlaTyRValTyRLeuAsnHisSerLeuAlaPheValGIyThrLySIIySIIy 453

DB 722 TCTGTGATCGATATGTCTCAAGAACCACTCTGTGGCTTGTGGGACACCAAAAGTGGC 781

QY 454 LysLeuLySIIySIIe 458

DB 782 AACCTGAAGAGGTG 796

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Job time : 1130 secs